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PUBLISHERS
KNOXVILLE, TENN.

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CONTENTS FOR JULY, 1913

TWICE TOLD TALES.....	40
HANDSOME PROFITS DERIVED FROM CAPONS.....Geo. Beuoy	41
SELECTING BREEDERS FOR ANOTHER YEAR.....J. H. Henderson	43
THE GREAT VALUE OF BUSINESS COURTESY	J. H. Petherbridge 44
THE WOODEN HEN AND HER WORK.....Michael K. Boyer	45
IMPORTANCE OF CARING FOR SITTING HENS.....J. C. Clipp	46
AN OLD, OLD STORY, BUT EVER NEW.....E. G. Wardin	47
KEEP THE WHITE BIRDS WHITE.....S. P. Porter	47
“THE QUEEN CITY BY THE SEA”.....S. T. Campbell, Sec’y A. P. A.	48
DANGERS THAT BREEDERS SHOULD AVOID.....A. J. Lawson	49
EDITORIAL	50
POULTRY SHOWS AND ASSOCIATIONS.....Edw. M. Graham	51
WHERE NAT’L CON. EXPO. POULTRY SHOW WILL BE HELD..Edw. M. Graham	54-55
UTILITY AND FANCY PIGEONS.....John A. Porter	56
OUR BREEDERS AND THEIR BIRDS.....Edw. M. Graham.....	58
POULTRY DISEASE DEPARTMENT.....J. A. Thornhill	59
WATER FOWLS AND TURKEYS	Special Correspondents 62

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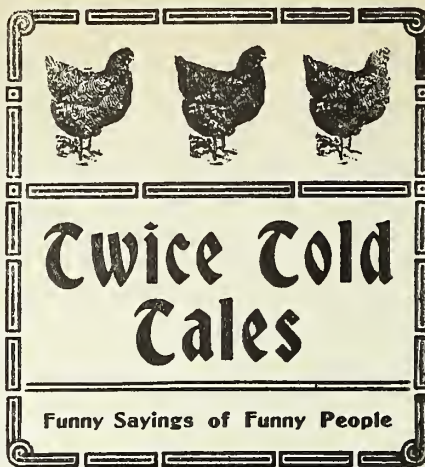
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AND BARRED ROCKS**

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C. A. MOXLEY - Taylorville, Illinois



Why is an egg like a colt?
Because it's of no use until broken.—Farm Press.

"One hundred ways to cook an egg," read Mrs. Newlywed, from a new cook book. "Oh dear! I can only cook this egg once!"—Judge.

A Negative Rule.

Visitor: "Digging potatoes, eh?"

Farmer's Boy: "Yes."

Visitor: "What do you get for digging potatoes?"

Boy: "Nothing;" but I get something for not digging them."

Visitor: "What do you get for not digging them?"

Boy: "Licked."—Wallace's Farmer.

"Bill," said Mr. Doughhead, "when the R. F. D. man comes around this mornin' tell him I want to see him, will ye? I'm thinkin' o' gettin' some o' them newfangled parcel-posts the gov'ment's sellin' fer that new fence around the chicken run. They say they come to about two cents a pound, 'nd thet's cheaper'n cuttin' em."—Harper's Weekly.

No Romance.

"I see a girl's name on this egg."

"Uh."

"Also her address. I shall write to her."

"Forget it. Nothing in those egg romances."

"No romance about this. I propose to ask her if there is really any money in the chicken business."—Kansas City Journal.

Sol Levi was stopping at a certain hotel recently and the following happened in the dining-room:

"Got any oysters?" he asked the waiter.

"No, sah," replied the son of Ham.

"Got any clams?"

"No sah."

"Have you any shellfish at all?" Sol asked.

"Boss," said the waiter, "de only kind of shellfish we has is eggs."

WHITE (Regal Str.) WYANDOTTES

BARGAINS in breeding stock for July delivery. Must have room for growing youngsters. Special reduction on day-old chicks and eggs. Write your wants. R. W. Patterson, Shiloh, O.

**Barred ROCKS
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EGGS from these Line-Bred, Stay White Orpingtons, 15 for \$15

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Fort Deposit, Ala.

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ROCKS

Partridge, Silver Penciled, Golden Barred. Madison Square Garden Champions 1906-7-8-9-10-11.

FREE CATALOGUE

Hillcrest Farms, -:- Oakford, Pa.

THE INDUSTRIOUS HEN

Vol. 10

Knoxville, Tenn., July, 1913

(Whole No. 110) No. 2

Handsome Profits Derived from Capons

An Address Delivered by GEORGE BEUOY, Dingley Dell Farm,
Cedar Vale, Kansas, Before the Kansas State Agricultural College.



CAPON, you know, is an unsexed male bird, usually of the chicken family. It is, however, quite common to work the young males from the duck tribe and sometimes from the turkey and goose family. Capons are not hatched from the eggs in that condition, but must be worked or operated on just the same as you would to make a steer of a calf or a barrow of a pig. The

object in each instance being the same; that is, to increase quality and amount of desirable meat that the animal will produce. Especially is this true with the capon. Not only is the amount and quality of the meat increased, but is accomplished at a considerably less cost and in a much shorter time by the simple operation required to make a capon. Some of you no doubt imagine it is quite difficult to make a capon, and to correct that impression is my chief object in making this address. It is much easier to make a capon than it is to perform a similar operation upon any other animal. Properly handled and with the modern instruments there is scarcely any danger of killing the bird. See to it that the birds are in proper condition and no bleeding will occur, as is the case in all other animals. Then again it does not appear to cause the bird any pain, a chicken you know usually squawks before he is hurt. In making a capon it is very rare for the bird to make any noise at all, except of course when you first catch him and are fastening him in position. In most other animals after an operation of this kind the patient will be off feed for several days, often for a week after the operation and it most always takes several weeks for them to fully recover. This is not the case in making capons. As soon as they are turned loose from the operating table they will be looking for something to eat and drink.

Plenty of water and light feed should be provided immediately. In many instances the bird just operated on will ruffle up his feathers just as if you had been handling him, give himself a shake or two and go to eating as if nothing had happened. There is really no muscles cut in the operation only a small incision through the skin and this will in most instances be united inside of twenty-four hours or even less time. Some of these statements may seem a bit large to some of you and that is why I am here,

to prove them to you. The Kansas Poultry Federation has asked me here to the annual meeting at the Kansas State Agricultural College to show you how these things are done on live birds and to demonstrate and illustrate every one of these statements. The College has kindly furnished us with birds in proper condition to work on and after I have explained a few important points we will proceed to show you how it is done. Several of our most progressive and up-to-date poultry journals have requested copies of this address to appear in their July numbers for the benefit of the readers that will not be able to attend this meeting and see the work done on the live birds. My ten years old daughter has been making capons for several years now,

both at home and for the neighbors. She gets ten cents each for working birds and makes considerable spending money in that way. It will not help you much to watch someone else operate; about all the good it will do is to convince you how easy it really is. If you want to learn, the proper way is to commence on a dead bird, one that you have just killed to eat.

Work on one or two in this way and you will become accustomed to the tools and will get the parts to be removed fixed in your mind and can then proceed with confidence on a live bird. It will pay you to have the best instruments, especially the remover must be correctly made and adjusted. In selecting the remover you should get one that will pass over the organ to be taken and grasp the cords and attaching membranes in such a way as to prevent the smallest particle from escaping. For this purpose about the only remover that I have found that would do this is some one of the different styles that has two hollow loops, ground beveled and fitted together so as to come shut with a strong spring. This style of remover should be made so that it works automatically and then about all that is required to

work it is a slight pressure of the hand to cause it to open. It should close securely of its own accord. In demonstrating I shall use a remover of this kind together with a humane spreader which also works automatically and is used for spreading the ribs apart so you can see what to do. Now just a word about the "Profits From Capons." With the possible exception of eggs I believe that capons will prove the most profitable part of the chicken business. No matter whether you are raising a big flock or just a few chickens. It will pay and pay big to have a few capons each year even though you never in-



tend to sell one, it will pay to have them just for your own use. The market is always good for capons; there is never enough to go around. The price you will be able to get per pound for them will depend much on your location. It is safe to figure, however, that capons fat and well finished will bring you just double the price paid for hens per pound, that are sold on the same market. We have been selling them for the last six or seven years and it works out in about that proportion for us.

Now in comparing what you will get for the capon you must remember that he will not only sell for more per pound but that he will also weigh almost twice as heavy weight for age. These figures I think will hold good in all breeds of chickens no matter what kind of stock you may have. I am raising the Barred Plymouth Rocks and situated in a section of the State where the local market is not good. Nearly all of our market stock is shipped to the Kansas City market. The season just passed we realized an average price of twenty-one cents per pound for our capons. The average weight at nine months was a trifle over ten pounds each. We operated on one hundred and thirty birds of our own raising. From this bunch only two "slips" developed. Some of the best capons were used on our own table and some of the smallest kept to

fowls no matter what breed you have and you can do it in any month of the year provided the birds are right as to development. Sold as capons they will bring you three or four times as much as if sold on the market in any other way. Half the chicks hatched each year are males; it seems to me that about the only way to realize a profit from this half of your flocks is to make capons of them. Especially is this true of the late summer and fall hatched ones. When a bird is just right to work on, seems to bother many beginners. No set rule as to size or age can be given as birds from different flocks and even birds of the same flocks and breed develop sexually in different sizes and ages. Generally speaking when the bird is about like a quail in size and appearance is the proper time. I have much the best success with quite small birds. This point will not bother you much; after you have tried a few you will soon learn to tell the ones that are right by the look of the bird. The proper time is just before the bird begins to develop sexually. It is very important to have the birds in proper condition before you attempt to work them. They should be off feed at least thirty-six hours.

Nature provides a bird with a craw for carrying a supply of feed enough to last him several hours. This must be exhausted and allowed to pass out of the bird before

you can work to advantage. It will require at least thirty-six hours for nature to accomplish this. During this period the bird should be confined in a dark cool place and not allowed anything to eat or drink. A dark place is best for the reason that the bird will pick up droppings and other waste matter if not kept in a dark place. After you have the birds in the proper condition you will need a good helper to catch and tie the birds for you. Some sort of table to work on will be required. For this an empty barrel turned bottom side up is all right. Stretch the bird out on top of the barrel and fasten the end of a weighted cord to his feet and another one to his wings just back of the second joint. Pluck a few feathers just in front of the hip joint. These you remember are just chick feathers and he is about ready to shed them any way so it will not hurt to assist him in moulting them. If the bird is not too far advanced there will not be many of them any way. After you have the feathers out of the way locate the last two ribs (I mean the two closest to his tail) with the forefinger of the left hand. You can easily feel them, place the point of thin narrow bladed and very sharp knife between them and press down hard. Draw the knife to you for about an inch being sure that it passes between the ribs at one stroke. The cut made, insert the spreader into the opening and press the handles together so as to spread the ribs about half an inch apart. A properly constructed spreader will hold it spread at any desired point, adjusting itself to the size and condition of each particular bird. After the cut is spread you will find a thin tissue covering the cavity and obstructing the view. This is too thin to be cut, so you will have to have a sharp hook for making an opening in it.

This accomplished, you will see the organ in plain sight, a small yellowish object, and if the bird is right it should be about the same size, color and shape as a good big plump grain of winter wheat. You can now see through the loops of your remover, which is now inserted into the bird with the loops closed. Locate the proper organ with them and press the spring, allowing the instrument to open just wide enough to pass over the organ to be removed and allow to close on the cord and membranes that attach it to the bird. The right kind of a remover locks shut at this point and holds everything secure. Once secured inside the loops all you have to do is to turn the remover round like you would to twist a cord or string. This twisting of the cords and membranes shuts off any possible flow of blood and gradually loosens the organ without danger to the bird. A few turns in this way and the parts to be removed come loose, and can be taken out, organ attachments and all, and no slips can result as the operation is a clean one. After you have removed the organ on one side turn the bird over and repeat the operation on the other side, proceeding as before. It is possible to get both organs from one side, but I have found it much the best to work from both sides. As soon as the last organ is removed turn the bird loose, water and feed the same as usual. Do not attempt to sew up or cover the opening.



"PRINCE HAL." The noted S. C. White Leghorn winner of first and specials wherever shown. At Roanoke, Va., December, 1911, he won besides first, a \$65 silver cup for best bird in the show, 1400 birds competing. At Richmond, Va., in January, 1913, he won, besides first, National S. C. W. Leghorn Club specials for best male, best head male, best shaped male and best colored male. Bred and owned by The Densmore Poultry Farm (Incorporated), Roanoke, Virginia, R. D. 3.

use for raising our incubator chicks. The remainder were shipped out in three different shipments to the Richard Butler Produce Co., of Kansas City, Mo., and we received as stated an average price of twenty-one cents per pound for them. This would make each capon bring a little over two dollars each. To make it figure easy we will speak in round numbers and say there was just an even hundred in this bunch. They were mostly late summer and fall hatched chicks, all our early ones being kept for breeding purposes. And at the time we commenced to caponize the market was overstocked with that kind of stuff and we could not have realized twenty cents apiece for them. So you see, sold as friers this lot would have only brought twenty dollars. Caponized and held a few months and we realized over two hundred dollars for the same birds—a profit of one hundred and eighty dollars. And that you remember was on only a hundred birds. Of course it took some extra feed, but the cost of that was nothing as compared with the gain made.

The cost to raise a capon varies with different localities and different flocks of birds. You will find, however, that it will cost just about the same to produce a capon as it would a hen of the same age. The capon will make almost twice as much weight on the same feed in the same length of time and will sell for double the price. Quality counts in capons as well as in all other animals. Pure bred fowls show up their quality and run much more even in all market requirements than common or mixed breeds, therefore it is very desirable to use standard or pure bred fowls for capons. You can make capons from any kind of

You know the bird was stretched out when you made the opening in the skin so when he gets back on his feet the cut will be up under his wing and not over the opening in the ribs at all. It is best to keep the newly made capons in a yard to themselves for a few days. Not much difference will be noticed in the newly made capons and the young cockerels for the first month or so. After they are four or five months old the capons will begin to get long legged and awkward, but in a very short time after that,

they will begin to heavy down and take on fat in surprising amounts.

I want to urge you all to try a few capons this summer. You can't possibly lose by the trial and you have much to gain. Anything that I have not made clear I will be pleased to explain or if you forget or want to know any additional points at any time just drop me a line and I assure you that it will receive my prompt and personal attention.

Selecting Breeders for Another Year

By J. H. HENDERSON, Breeder Brown Leghorns, Knoxville, Tennessee



IS is the season of the year in which to select breeders for another year. Pedigree counts for most, both with the up-to-date fancier and utility breeder. Early hatched chicks are now beginning to show some style, shape and development. Keep your eye on the vigorous, noisy, hustling cockerels and select from your early developing pedigree chicks, cockerels of good shape and style, discarding all cockerels that do not possess vigor, regardless of pedigree and feather.

In making my selection I always choose cockerels whose mates (pullets) are very strong in color. In my experience it does not pay to use cockerels for breeding whose sisters do not show up well in fancy points.

I prefer cockerels of good shape and style, but in some instances the best females I have ever produced were bred from cockerels that were awkward and had squirrel tail; in fact the only redeeming feature to their credit was pedigree, which I regard of greatest importance with the pullet line in breeding exhibition Brown Leghorns.

One can often account for ill shapes and squirrel tails being caused by overcrowding chicks while they are developing, and by mating cockerels of this kind to high-scoring females, their progeny will be very satisfactory.

Here are some points which may be of some service to the amateur in selecting breeders, pullet line males: first, vigor; second, pedigree; third, shape; fourth, color.

If one has birds of high quality breeding from which to select, birds that have been bred in line for many years, the first essential named above, must of necessity include all the other three to a great extent. If an amateur, with fowls of unknown pedigree, then the second in order named above should be eliminated and should read—vigor, shape, color.

It is of great importance to see that breeding stock is not stunted in growth. Separate cockerels from pullets as soon as they begin to worry the pullets. Go over the pullets very carefully and select out all that do not show signs of vigor and early development, then cull out those that you know will not be of service in the breeding pens for another season; market or eat all these two classes of pullets as soon as possible. It will require several cullings to dispense with the undesirable.

The cockerels are the hardest problem—about 50% of all chicks hatched are generally cockerels, and the sooner a breeder or fancier gets rid of his surplus cockerels, the better. Cull early and often, and do not undertake to care for too many.

A few good, well-bred cockerels in A No. 1 condition are of more value than a whole pen of culls—all cockerels in unsalable condition are classed as culls, and must be sold at market prices at so much per pound, regardless of their high breeding.

I usually place ten or more cockerels in a small run, and put an old cock bird with them to police them and settle all quarrels.

I begin to cull early, and by the time they are good frying size, I have them culled down to about four to six to a pen. This number I can keep satisfied, provided they are where they cannot see the hens or pullets.

I find that cockerels grow to a larger size and make stronger breeders when kept separated from the females until a short while before the breeding season.

Study the "Standard" carefully. Learn to select your breeders early. Some breeders claim to be able to select their breeding cockerels by the time they are a few weeks

old. It is a very interesting study for any one who enjoys a little out-door recreation, and it can be made a profitable business if one has time to devote to it.

Tariff Bill Endangers Feathered Tribe

A small and innocent-looking "amendment" to the clause in the new tariff bill prohibiting the importation of wild birds' plumage for milliners' use is now before the United States Senate (Schedule N, Section 357). Already the majority of the Senate Finance Committee has approved it—it looks so harmless and reasonable!

It provides that the feather trade shall have the right to import the feathers of all birds killed as "game," for food, and of all birds because they are "pests." As a matter of fact, there is no commercial product consisting of the feathers of hawks and owls that have been shot because they are "pests." But, for the moment, we will pass that point.

Let us proceed in this matter with our eyes wide open. How many species of foreign "game" birds and "pest" birds would be subject to slaughter for the feather trade, in case that "amendment" prevails, and finally is enacted into law?

A List of the Species Endangered.

Prepared by Lee S. Crandall, Asst. Curator of Birds, N. Y. Zoological Park, from the British Museum Catalog of Birds.

Game Birds of the World, Exclusive of the United States.

	Species
Tinamous	71
Upland Game Birds:	
Megapodes, or Brush Turkeys.....	28
Curassows, Guans and Chachalacas.....	59
Ptarmigan and Grouse.....	26
Old World Partridges and Quail.....	153
Pheasants	92
Jungle Fowl	4
Peafowl	3
Guinea-fowl	23
Turkeys	1
New World Quail	59
Hemipodes, or Button Quail.....	448
Sand Grouse	27
Pigeons and Doves	15
Rails and Gallinules	540
Shore Birds	195
Cranes and their allies	242
Ducks, Geese and Swans.....	30
	54

Total 1622

"Pest" Birds of the World, Exclusive of the United States.

Eagles, Hawks, Kites and Falcons.....	437
Owls	283

Total 720 720

Grand total of species available under the amendment demanded by the feather trade.. 2342

No Wonder the feather trade is satisfied with their little three-line amendment!

Now the question is: Are the American people and the Senators of the United States willing to leave the 2342 species of birds listed above subject to slaughter by the head-hunters of the feather trade?

The way to preserve the birds of the world is to stop the killing of them!

New York Zoological Society, W. T. HORNADAY.
June 20, 1913.

The Great Value of Business Courtesy

By J. H. PETHERBRIDGE, Mt. Airy, Philadelphia, Pennsylvania



HERE are many commendable features in "The Industrious Hen" that are worthy of extended notice, but for the purpose and moral of this short article, I will, without comment, only refer to the large, clear, readable type, the wide columns, the excellent taste shown in "headings" and the distribution of display advertisements, the satisfying diversity of the reading and instructive matter, the lack of repetition and absence of an undue number of "write-ups."

Doubtless right at this point the publishers are expecting me to say something graceful and complimentary about their new cover in colors, first exhibited in their May issue, but I am not quite certain that I like it as well as their former dress of heavy white enamel with only blue lettering and embellishment; it was this distinctive, clean and neat cover that first attracted me to the "Hen."

But there is another characteristic and praiseworthy trait of the "Hen," though unrelated to its literary and educational merit, that has appealed to me as forcibly as any other, and that is the practice, so far as my personal experience goes, of the office of the "Hen" to give a **prompt and courteous** reply by mail to every correspondent. Possibly, as one whose training for almost two score of years has been office routine and methodical procedure, the prompt and courteous answering of inquiries, assumes exaggerated virtue and the failure to hear from one from whom you have a right to anticipate a reply, awakens undue indignation. I do not desire to accuse poultrymen or the poultry press of greater laxity than any other class of business, in this matter of prompt attention to their correspondence, but that there are some poultrymen and some editors, who either delay or entirely ignore communications that do not seem to spell immediate and personal profit, I have had ample evidence.

Now as regards this "immediate and personal profit" proposition; it is far from safe to assume because a communication contains no check and embodies no order that it "spells no profit." A prompt and courteous reply to a seemingly selfish inquiry or communication, may make you a friend, whose friends may benefit you and an endless chain of personal recommendations be started. I cannot bring out clearly the point I desire to make without introducing a personal note that I would prefer not to strike, for some reader may recognize the illustrative incident I relate and jump to the conclusion that I am nursing a "grouch." My correspondence among poultrymen has been rather heavy for several years; a good many letters and cards reach me that do not touch upon my immediate business, but such inquiries receive as much care in answering and are as promptly replied to as if they represented a cash accompanied order. The fact that such care and promptness does not always seem to be appreciated carries no weight with our business judgment.

Prior to the "boom" the Buttercup seems to be now enjoying, I offered a modest premium in a mid-west show for the best pen of Buttercups exhibited; there were none exhibited and I received a letter from a resident of the show town, asking me to favor him with printed matter descriptive of this breed and if I had any stock for sale, to name my price. I acknowledged his inquiry, stating that I was sorry not to be able to forward descriptive printed matter, but that I had referred his inquiry to three Buttercup breeders and he would doubtless hear from them. I trust he did hear from them, although not one of the three wrote me any "thanks for the pointer." For several months I forwarded to this party any of my poultry journals that had articles on the Buttercup. He never acknowledged the receipt of my original reply nor my after efforts to fully answer his inquiry.

Again, last fall it came to my knowledge that a certain business acquaintance was in the market for some R. I. Red pullets; I immediately wrote to three breeders of this variety, living in nearby towns, giving them the prospect; one of them made a fine sale, but not one of the three advised me that my "advice" was received and appreciated. I could cite many other instances from my personal experience, but do not deem it wise or necessary.

You may draw the conclusion that my illustrative citations disprove my assertion that "courtesy" pays, but

such a conclusion would be in error. "There are losses which are gains and gains which are losses." It is no ultimate loss to me that my courtesy is not recognized; the chances are that every such service is appreciated and the donor held in grateful memory, but the only loss falls on the recipient who neglects to make acknowledgment, for the second "pointer" would not likely go to the party who ignored the first. The exercise of business courtesy may often seem "like bread cast upon the waters," but it will just as surely "come back" in due time. And it's the unexpected favor or kindness that warms our heart and brushes the cobwebs from our liver. An unsolicited testimonial may read no better to the public but to the discouraged or successful manufacturer it is "an apple of gold in a picture of silver." And it is not only the letters that come to us that should have prompt and courteous response, but if we could only realize it, we might do well to write some on our own initiative.

Suppose in this number of the "Hen" you read a communication from a brother poultryman that pleases you, it would take only a moment of your time to write him a few lines and tell him how much pleasure his article gave you. There is much agitation now in the poultry press and farm journals about "co-operation," but if each and all of us would co-operate one with the other, whenever opportunity offers and we constantly keep our eyes open for opportunities to do each other service, we would have the best form of co-operation and be in no danger of conflict with anti-trust laws. When we forget how to "knock" and begin to take pleasure in "pushing" the day of "pull-together" has dawned.

If you have allowed your stock of letter heads to run low, give your printer an order at once and tell him you want something good and neat and up-to-date, for you recognize that good business stationery is a business getter. Then go through those pigeon holes in your old or new desk and answer the communications you laid aside to care for at "a more convenient season." If you have been using a bushel basket for waste paper, relegate it to the barn; your "biggest girl" will make you a dainty little receptacle for all the mail that is really waste. Many a dividend has been lost in a too large and handy waste-paper basket.

There is a prejudice in the market regarding the color of an egg shell. It is a prejudice of long standing, and will, without doubt, remain with the buying public. The average American market prefers a brown color, while New York City is ready to pay a premium for white shelled eggs. The brown egg buyers in particular, claim that the eggs are of a richer flavor. All this is imaginary, when we come to understand that it is food and not color of shell that flavors the egg. Is it reasonable to suppose that the brown egg of the Brahma fed on onions could be as sweet as the white egg of the Leghorn fed on clover?

It is not profitable to treat fowls suffering with a contagious disease. It is a better move to at once destroy all such cases—there may be an epidemic. The lighter ailments, such as colds, for instance should be promptly treated, and we know of nothing better than a quinine pill (one grain) each night for about a week; four drops of tincture of aconite in a half pint of drinking water, is a good remedy for a cold that shows itself by sneezing. When a fowl is droopy, loss of appetite, and the comb and wattles do not have that bright look they have in health, very often a family liver pill will work wonders.

The duck generally lays at night. It thrives best on soft, succulent food. Strong, vigorous birds can be successfully bred at four years of age. When properly fed, when at eight weeks of age, green ducks will weigh nine pounds to the pair. At ten weeks they should weigh ten to eleven pounds to the pair. The best prices for green ducks is given about May 1st. Then the price gradually declines until the month of July.

New York City is the real great broiler market of the East, and Chicago holds a similar position in the West. The famous "Philadelphia broilers" are not a product of that city, but instead are grown in South Jersey.

The Wooden Hen and Her Work

By MICHAEL K. BOYER, Hammonton, New Jersey



THE POULTRY business today—especially the market side—would be of very little consequence were it not for the successful work done by incubators and brooders. Such rapid strides have been made in this line that we now have artificial methods down to a science, and it would seem that there is little left for improvement.

The writer well remembers the birth of the broiler industry, and the crude methods employed. It was only about thirty years ago that attempts of any size were made to establish such a business. Where scarcely one hundred chicks were hatched and grown in those times, now over a thousand not only see the light of day, but find their ending in the market.

In the early days of artificial methods it was believed by some writers that chicks thus hatched and reared were not so strong as those brought out by hens. There may have been some truth in that, for the methods were so crude that delayed hatches seemed to be the rule.

With the march of improvement, however, it became known that the fault for poor results rested in the man in charge, rather than in the incubator. Inexperience—a lack of knowledge of the laws of incubation—was the main cause. Then again the brooding system was very faulty—in fact, there is still room for much improvement in this line. The old-time brooders were mere boxes with lamps underneath, sending forth a strong bottom heat. No wonder there were cases of leg weakness, bowel troubles, chills, colds and other troubles that slew the youngsters about as rapidly as they were hatched.

We have today improved machinery. They are the efforts of years of experience and study. The student has also received a more practical insight to the requirements of the egg. To him no longer is the moisture problem bugbear, for he has been taught how to tell the condition of the egg and what it needs.

For years there has been great complaint about chicks being found dead in the shell. Why? It is a question that even today cannot be satisfactorily answered.

One writer some time ago said he solved the problem after five years experimenting. He reasoned that in natural incubation the eggs come in contact with the body of the broody hen. This is the source of heat. At the same time the eggs receive the "outside air" through the feathers of the hen, and through the porous wall of the nest.

In other words, the air is diffused through feathers and porous nest amongst the eggs without a draft. In an incubator the eggs lie on a tray in "hot air" only, and in a "draft." Hot air contains much less oxygen than does cool air, consequently anything that inhales hot air has its digestion impaired and develops poorly.

This, says the aforesaid writer, is the main cause for chicks sticking to and dying in the shell. This is why the albumen, white of egg, instead of becoming a chick is formed into glue. This is why chicks are "frail and fast," and the draft of air finishes the deadly work.

The above theory may be the beginning of the solution, and while there are many reasons, the poultry world has not yet gotten down to fully understand what is the real cause. But the correct answer will some day be given.

A hen that is laying should never be so fat as to prevent the gizzard from being felt. When food is given in excess of what is needed to sustain life it is generally disposed of in one of three ways; it will either produce flesh, put on fat, or manufacture eggs. The flesh can be found in the breast, wings and thighs; the fat in the stern and abdomen; and the eggs in the nest.

Professor Jarvis, of the Ontario (Canada) station, some years ago made a series of experiments in the production and fertility of eggs, with the following results: Ten laying hens were separated from the male. The eggs laid each day were placed in an incubator and their fertility tested. Of the eggs laid during the first four days after the male was removed, 70 per cent was fertile; of those laid on the fifth day, 61 per cent; on the seventh 49 per cent; on the eighth 12 per cent; on the ninth 2 per cent, and on the tenth all were infertile. A test was made with six laying hens to determine the time which elapsed before

eggs become fertile after a male is introduced. On the third day 30 per cent of the eggs were found to be fertile; on the fourth, 42 per cent; on the fifth, 50 per cent; on the sixth, 60 per cent; on the seventh, 70 per cent; on the eighth, 60 per cent; on the ninth, 70 per cent; and on the tenth, 74 per cent. The influence of the male on the total amount of eggs produced was tested with two lots. No. 1 consisted of five pullets, five hens and one cock; Lot. 2 of five hens and five pullets of the same variety as Lot No. 1. The test began January 1st and lasted until September 1st. Both pens were fed and cared for in the same way. Lot No. 1 laid 959 eggs, and Lot No. 2 laid 972 eggs. It can be seen that there was but very little difference in the number of eggs produced by the two pens, the larger number being credited to the pen that did not have a male bird in it. This is more evidence that the presence of the male has nothing whatever to do with egg production.

Pin-feather closely. Quick growth makes tender meat. It don't pay to send poor stock to market. Market as soon as the desired weight is attained. In mating for market poultry, select the best breasted birds. Be sure to wash the blood from off the dressed poultry before shipping to market.

More Wyandottes are used for broiler raising, especially on the large poultry farms than any other breed. The



Densmore Poultry Farm, Roanoke, Virginia.

Rhode Island Reds make very satisfactory broilers and roasters. The Plymouth Rocks are better adapted for roasting fowls than they are for broilers. Leghorns make attractive looking broilers, but the combs of the cockerels are rather large for that purpose, and the breed is slower in gaining the desired weight. Light Brahma chicks make satisfactory broilers at twelve weeks of age, but after that they lose their plumpness and are too bony to sell well. The feathers on their legs, too, hurts their market appearance.

When it is intended that the cockerels shall be grown for "soft roasters" (four pounds in weight,) they should be separated from the pullets before the combs begin to grow a bright red. After that they will begin nagging the pullets thus keeping them from properly developing.

It will cost the farmer no more money to raise thoroughbred poultry than it will to grow scrubs. The pure-breds will not only bring more money in the wholesale market, but it is a fact that poorly graded poultry lose more heavily in shrinkage than do those that are of pure blood. Commission men say that there is a marked improvement in the quality of the poultry that now comes to the city markets, and say that this improvement has been influenced by the buyers who collect poultry from the farmers and ship it to the market. The shippers can pay a higher price for a better quality of poultry and then make more money, for the reason that they get better returns.

In some cases the cause of infertile eggs can be traced to the male bird not getting sufficient food. In his care for

the hens and his gallantry to them, he allows them to eat the grain, and if the supply is short he has to go on short rations. Again, the fault may lie in the size of the breeding pen. There may be too few and there may be too many hens in the pen. If the male is a very active fellow, and he be allowed too few hens, he will so harass them, and they so determined to fight off his advances, that eggs will be poorly fertilized. On the other hand, if the number of hens is too many, and the male not overly active, he will be unable to give them the proper attention. It is necessary to study the condition of the male bird in mating.

A smooth plumage indicates health. A dark comb shows that indigestion is at work.

What is roup? Writers say it is any disease of the nostrils, mouth or throat. Now it is a fact that fowls have as many diseases of the air passages as have human beings. They have chronic catarrh, acute catarrh, or influenza, contagious influenza, diphtheria, tuberculosis and common sore throat. And some writers will call all these diseases "roup." The mere sneezing, or watering at the eyes, or even a swollen head, has time and again been termed roup, but the diagnosis is wrong. These are conditions that if

allowed to go unchecked will eventually lead on to roup, but never become that fatal disease until in the last stages. Then the breath becomes so fetid that there can be no mistake.

It is generally believed that the reason why fowls strive for the highest place on the roost is that they have the instinct that teaches them the higher they get the safer they are. Where perches are made after the old-fashioned idea like a ladder leaning upon a wall, the stronger fowls fight for a seat in the top row, and there is not only a lot of disturbance at roosting time, but it very often happens that the more weaker ones are injured in their fight for supremacy.

Those who know nothing about poultry culture, are apt to believe that they can find a fortune in it. At once they invest a large amount of money, not stopping to think that they have no experience. Is it any wonder that they fail? There is a good living in poultry culture for the careful man who will give it the proper attention. Under any other condition the poultry will not even pay their feed bill.

Importance of Caring for Sitting Hens

By J. C. CLIPP, Saltillo, Indiana



IT'S RATHER disgusting to the poultryman who really loves fowls to hear a hard-hearted person say, "We never feed nor water our broody hens. If they want anything to eat or drink, they must work for it the same as I do." This was the expression of one of our neighbors not long since. It's a natural inclination with hens to become broody; they can't help it. It's

not a criminal case with them, as some seem to suppose. Some poultry growers will not even feed their sitting hens, supposing nature has provided them with some sort of a "strange reserve" in their system to last them throughout the hatching period, but such is not the case. Sitting hens should be fed as well and regularly as laying hens; the rations should be very different, however, and not so rich in nitrogenous foods. Sitting hens should have food where they can get it any time in the day they should come off the nest. It's not only from the standpoint of mercy we must do this, but because we wish them to form the habit of coming off regularly for their food. They will soon learn to do this every morning in order to get food, when it has been provided for them constantly. We feed whole corn mostly to sitting hens, as they require the strongest fat-producing foods possible. Soft foods are not desirable for sitting hens, as they are not at that time producers of anything, rather dormant, yet require fat producing foods in order to keep up heat and greatest vitality possible. Bodily maintenance is all they require, and whole corn, with an occasional feed of oats will supply these demands possibly better than any other rations.

The breaking up of the sitting hens should be done with some degree of human feeling, and not with brutal means such as ducking them in water, tying ribbons to the tail, refusing them food and water and such like. This treatment I am sure would delay rather than promote egg-production. Our method of breaking up sitting hens is to isolate them from the nest by confining them to comfortable quarters and feeding them the best egg-producing foods possible, as well as providing plenty of water. As soon as you begin feeding soft foods, vegetables, animal foods and a variety of grains, such as oats, wheat and a limited amount of corn, you are bound to place them in a condition to produce eggs rather than to enable them to have a desire to set. I never could see the wisdom of treating sitting hens in an inhuman manner in order to break them from sitting. The owner will lose more than he can realize, as hens properly treated can be broken from the broody habit and forced to lay in a week's time. I doubt if a hen can be forced to lay within a month by using any of the barbarous treatments. We do not care to make any radical change with our hens in breaking them up when they become broody, other than to take them out of sight of their nest. The feeding and care goes right

on, and soon we have them laying again. Strange as it may appear, yet it is very true that many growers of poultry really do not know how to break up a sitting hen. They appear to have the idea that the devil is in them and they must resort to some severe punishment in order to teach them how to act. Use good, common sense and avoid inhuman methods, and you will accomplish much more.

Newman says duck eggs for hatching should not be washed, or the oily, greasy covering on the outside shell will be removed, and they will not hatch so well. Hallock says he would rather wash the eggs before putting them into the incubators, than to use very dirty ones, yet he believes that washing does injure them. He tried the experiment of putting eggs in one tray of his machine that were gathered from the bottom of the creek where the breeding ducks bathe. He noticed that but twenty to twenty-five per cent of these eggs were fertile, owing to the length of time they were deposited in the water. At the same time eggs that were laid in the houses, or on land, gave eighty-five per cent fertility.

An old time theory said that hens without the attention of a male would lay as well, but not be so apt to become broody, as those mated. Our records show they will lay as well, but unmated flocks are not broody-proof by any means. The past season our unmated birds, with a few exceptions, became broody first, while two-year old hens were the last to show any signs.

During incubation, eggs should be tested on the seventh and fourteenth days. At the first test the air cell should measure about a quarter of an inch; on the tenth day a half inch; fifteenth day, five-eighths inch; nineteenth day three-quarters inch. The measurement should be taken from the middle of the large end.

Rye is the poorest of poultry grains. Corn and buckwheat should be fed sparingly, as they are so fattening. Wheat leads as a well balanced food, and barley is a close second. Feeding too much buckwheat has a tendency to produce a white skin and light colored yolks in eggs.

If sexes are equal, geese pair. The laying season usually opens in February. Young ganders make better breeders than do young geese. As a rule geese are free from disease. Old geese are more reliable, and lay more eggs than do young geese. Geese live longer than do any of our domestic poultry.

An Old, Old Story, But Ever New

By E. G. WARDIN, Charlotte, North Carolina



IN SPITE of the fact that this subject has been written about, time without number, the fact remains that about nine out of every ten persons with whom we come in contact in the poultry business, seem to have only a vague idea of the underlying principles that must obtain if they would attain any degree of success in this very easy (?) calling. The veteran fancier will

probably have no need to read what is to follow; but the ever increasing army of amateurs need to have the road plainly marked with guide posts, set at convenient distances, telling in good plain language, the paths to follow and those to avoid, as well as the wherefore of both.

The very fact that so many of these fever-stricken amateurs fail, should be an incentive to others to find out why they do so, and avoid the pitfalls that cause the failures. If these failures were traced back, the source of the trouble can usually be laid to ignorance of the business, coupled with laziness of the persons interested. There are numbers of people who have never made a success of anything in their lives, who think that all there is to the "hen business" is to get a flock of any old kind of fowls, give them any kind of a shelter from a broken-down hog pen to a cedar tree, chuck them a peck or so of corn semi-occasionally; then expect a full egg basket and a barrel of money. These kind of people with these kind of ideas, are on the direct road to the poor-house and by the very shortest cut that can be found. There are lots of such people all over the country that quit the poultry business every year, declaring that there is no money in it, when the fault was theirs and not that of the business.

We doubt if there is any other business that requires more attention to details than does the successful raising of good poultry. On the other hand there is no legitimate calling that will pay so large a percentage on the money

invested, if the investor will use good, plain, common sense in its pursuit.

There is always something to do at a poultry plant, be it large or small, and the one who thinks it is a case of a little feeding and then sit down and watch them grow, had better quit the business before he commences.

Any one who holds a position paying even a moderate salary will do well to think twice and then some more before abandoning it with the expectation of bettering himself by devoting his whole time to the poultry business. If all the successful poultrymen and women were asked to give their experience, it would be found that ninety-nine per cent of them started with just a few hens and less money; that they stuck to their regular avocation until they had learned the ins and outs of poultry raising; that they gradually, naturally increased their flocks from year to year, until the very poultry itself forced them to quit their job or quit raising poultry.

There are numerous instances on record of men who have been successful in their own particular line of business, who have sunk all they had previously made in a poultry venture, simply because they knew practically nothing about the business. One of these invested fifty thousand dollars, built a so-called model plant in the shape of a horse shoe, said he knew all about it, was going to start little chickens at one end of the shoe, and after once getting the pens filled, was going to turn out a certain number of fowls at the other end of the shoe, every day in the year. It figured out beautifully, and he failed utterly, which goes to show that you cannot run a poultry plant by mathematics.

Three things are essential to success—common sense, honesty and application, and if they are applied to poultry raising, success is certain to result. There is no exact rule that can be laid down that will fit the widely varying conditions that exists in the different sections of this immense country.

Keep The White Birds White

By S. P. PORTER, Mallet Creek, Ohio



IN THE purchase of a white bird for breeding purposes, perhaps the first thing wished is, that it be white, and therefore white birds are greatly in demand. There are few birds that breed brassy chicks, and brassiness is not so hereditary as some think, but rather the conditions under which the white chick is developed, which has to do with its whiteness when matured.

Shade, not to the extent of dampness, but plenty of shade during the scorching summer days, is the best preventive known. We think the whitest birds we ever grew were a bunch that were grown to maturity in a corn field; by the way, we should temper that a little; they had the run of a meadow until the corn shaded the ground well. And right here, we can't help but remember how full the crops of these chicks were at all times as there was no end to the supply and variety of bugs down in that corn field; it beat green bone; surely it did, beat beef scraps, yes, a long way; it's hard to beat nature's animal supply found by chicks in a cornfield, and the chicks are kept so busy darting around for this greatest of all nature's food, that the sun hasn't time to give them a scorching.

Then there are various other plans for shade; an orchard run is excellent, but chicks are liable to find a place to wallow or dust themselves out from under the trees in a sunny place, for they seek such a place in the sun and sometimes stay in the dust bath a long time in the scorching sun. If we would provide a tempting dust bath for them, have it in the building or under the shade of the trees, or what is better, under an open shed; this shed could be used to advantage threefold. Have it open to the north, then in cool, windy weather (and we know the fowls all dislike cold winds) it's a good wind break for the

birds, and you'll always find them there when it's windy. Then it keeps the dust bath dry, as well as protects the birds from the rays of the sun, the only real cause of brassiness. These sheds should be built rather low, with shed roof, no floor, and but three sides, of light lumber so they can be easily moved by hand. By the way, if these sheds were used in an orchard run or even without trees, they can be easily converted into a summer cottage for the birds, and if in breeding yards, nests could be placed under the shed and temporary perches supplied, and, well, the birds would feel like a lot of youngsters camping out, and it would surely do them much good, and the most good would come from the keeping of the fowls from the brass-maker, "Old Sol."

We sometimes hear breeders claim that yellow corn makes yellow plumage on white birds; well, we're not going to say it doesn't. But did you ever notice that yellow corn fed to a white pig turned him yellow; did you? Oh! ho! if we can make colors with food, why not feed charcoal to black fowls to keep them black, chalk to white birds, salt and pepper to Wyandottes and Anconas, etc. Well, for fear our good editor will call us down for such nonsense we'll stop right now. But remember that there are more chickens that don't get enough yellow corn than there are that get so much it makes them brassy.

One of those disbelievers in the feeding of yellow corn to white birds was explaining his belief to a neighbor who called on him one day, when the neighbor's little boy who had been taking it all in, said, "Say, pa, let's feed our old gray horse yellow corn; she'd make a dandy buckskin." Rather a hard sling at the yellow corn hater, but it showed how young America viewed the yellow corn hobby.

In order to succeed in the poultry business you must advertise in the poultry journals.

"The Queen City by the Sea"

Where the Annual Meeting of the American Poultry Association
Will Be Held August 11 to 16. Interesting Program Arranged



ATLANTIC CITY, selected by an overwhelming vote as a meeting place, is noted for its famous surf bathing, and the longest board walk in the world. All kinds of amusements are in abundance, and the climate is delightful in the summer, with a cool and refreshing breeze blowing in from the ocean laden with the salt air and the oxygen of the sea.

As a health resort it stands without a peer, and for social amusements and recreation, Atlantic City is justly famous the world over. Each year hundreds of thousands of people flock to Atlantic City for recreation and amusement. Conventions innumerable meet at Atlantic City and frequently several conventions are in session at one time. Atlantic City, as a hotel town, has not only hotels in abundance, but at all prices. Prices range from 50c a room, up. A large, cool, neat, clean room with running water and other modern conveniences may be had from a dollar up. In fact there are more hotels in Atlantic City than in the average town of a quarter of a million people. Don't be scared away from Atlantic City for fear of high hotel rates because the President and Secretary know from experience that hotel rates are cheaper than in many larger cities. It is said that "Atlantic City has more amusements, recreations, and hotels than any other city in the world of equal population."

Railroad rates from practically all points in the United States are the lowest. Atlantic City enjoys lower excursion rates than any other city in the East. It has more excursions than any other city. Don't forget to ask your local agent for railroad rates.

PROGRAM

Thirty-eighth Annual Meeting of the American Poultry Association, Atlantic City, N. J., August 11th to 16th, 1913.

Headquarters, Hotel Dennis, Atlantic City, N. J.

All meetings of the Association will be in the Greek Temple on the Million Dollar Pier, and will be open, not only to members of the American Poultry Association, but to the public generally.

Monday, August 11th, 9 a. m.

Meeting of the Executive Board in the rooms of the Hotel Dennis. Sessions of the Executive Board will be held Monday afternoon and evening.

Tuesday, August 12th, 9 a. m.

Meetings of the Executive Board will be held morning, afternoon and evening.

Wednesday, August 13th, 9 a. m.

Thirty-eighth Annual Meeting of the American Poultry Association called to order by the President.

Address of welcome by Charles D. Cleveland, President of the New Jersey Branch.

Address of welcome by the Governor of New Jersey.

Address of welcome by the Mayor of Atlantic City.

Response by Reese V. Hicks, President of the American Poultry Association.

Roll call of members by states.

Approval of minutes of last meeting.

Report of Election Commissioner.

Election of Board of Review.

Appointment of Committee on Credentials. (All credentials must be in the hands of the Secretary before opening roll call.)

Report of Executive Board on applications for membership, and charters granted to branches; annual report and recommendations. (All reports open for discussion as soon as made and motions to carry their recommendations into effect.)

Annual report of the Secretary.

Annual report of the Treasurer.

Report of the Finance Committee.

1:30 p. m.

Report of Board of Review, under suspension of rules.
Report of Committee on Credentials.

Branch reports (All reports must be in writing, signed by the Branch President and Secretary, and in the hands of the Secretary of the Association before reports from each state are called for. No verbal reports or comments will be allowed.)

Reports of Committee on Bureau of Lecturers, W. Theo. Wittman, Chairman.

Report of Committee on Education and Experimentation, Prof. James E. Rice, Chairman.

Report of Committee on Plymouth Rock Breed Standard, Arthur C. Smith, Chairman.

Lecture: "The Science of Artificial Incubation," by W. R. Graham, Poultry Husbandman, Ontario College, Guelph, Canada.

Adjournment.

7:30 p. m.

Report of Standing Revision Committee on 1915 Standard, Reese V. Hicks, Ex-officio Chairman. (Bring your Standard with you for reference as to suggested changes.)

8:30 p. m.

Lecture, "A Review of Progress" by James E. Rice, Professor of Poultry Husbandry, Cornell University, Ithaca, N. Y.

Thursday, August 14th, 9 a. m.

Report of Standing Revision Committee, 1915 Standard, (continued.)

Report of Committee on Show Supplies and Blanks, W. Theo. Wittman, Chairman.

Adjournment.

Trolley Ride and Clam Bake at Longport.

1:30 p. m.

Report of Text Book Committee, Reese V. Hicks, Ex-officio Chairman.

Consideration of proposed amendments to Constitution and By-Laws.

Report of Market Poultry and Egg Standard Committee, R. H. Essex, Chairman.

Report of the Committee on Government Co-operation, Chas. T. Cornman, Chairman.

Report of Committee on Publicity, Frank B. White, Chairman.

Adjournment.

7:30 p. m.

Address by Dr. Mary E. Pennington, Chief of Government's Food Research Laboratory, Philadelphia, Pa.

Lecture, "Breeding for Egg Production," by Dr. Raymond Pearl, Biologist, Maine Agricultural Experiment Station, Orono, Maine.

Lecture: "The Science and Practices of Poultry Feeding," by T. E. Quisenberry, Missouri State Poultry Experiment Station, Mountain Grove, Missouri.

Friday, August 15th, 9 a. m.

Inauguration of new officers.

New business.

Adjournment.

1:30 p. m.

Report of Executive Board; Judges' licenses granted; New members elected; Standing committee announcements; Election of Treasurer announced.

Election of Election Commissioner.

Unfinished Business.

Adjournment.

7:30 p. m.

Lecture: "The Commercial Egg Farmer," by R. C. Lawry, Vice President of the Yesterlaid Egg Farms Co., Pacific, Missouri.

Lecture: "Common Poultry Diseases," by Prof. F. H. Stoneburn, Poultry Expert, Philadelphia, Pa.

Lecture: "Rearing Chickens," by Prof. Horace Atwood, Poultry Husbandman, W. Va. Agricultural College, Morgantown, W. Va.

Lecture: "Environment the Determining Factor in Production," by H. R. Lewis, Poultry Husbandman, N. J. State Agricultural Experiment Station, New Brunswick, N. J.

Saturday, August 16th

Organized trips to leading plants and centers of production, by members desiring to visit these.

Every member can, at his leisure, as a guest of the New Jersey Branch, take the benefit of an ocean chair ride the length of the board walk about five miles, and also have the privilege of guides in viewing the city.

Notice of Revision Committee Meetings

Meetings of the Standard Revision Committee will be held at Indianapolis, Indiana, July 8, and at Atlantic City, New Jersey, on August 9, 1913.

Hours and hotels where meetings will be held may be had later by writing the Chairman as these details have not yet been arranged.

All persons, Specialty Clubs and Associations having changes to suggest in the Standard of Perfection, are requested to either appear or send representatives to one of these meetings.

REESE V. HICKS,

Ex-officio Chairman,
Topeka, Kansas.

Dangers that Breeders Should Avoid

We have had a fine Spring for hatching and growing young chicks, especially so during April and May, as in most sections of the South it has been very pleasant dry weather, but the storms and heavy rains of June, and cool nights are detrimental to young chicks, if allowed to be exposed. And as I look through my experience glasses, I can see some who claim to be up-to-date breeders, looking with sleepy eyes in the early morning at their "would-be" fine youngsters, that are so near sapped to death by lice that their feathers have turned the wrong way. And they seem to wonder why their chicks are droopy and begin to die. They claim that their stock is free from lice, giving as their reason that they destroyed all the lice six weeks ago. They fail to know that lice will breed three generations in six days, and one female louse (and that's the only sex we have) will produce six thousand head in six days.

Another danger is overcrowding young stock. As they grow they must have more room. But one of the greatest enemies, and this too we must overcome, is damp or filthy roosting quarters. Brooder houses, brooders and roosting coops, if allowed to become filthy, will cause roup, sorehead, chickenpox and a thousand and one diseases that in a few days' time will cause the careless breeder, who wants to sleep until six o'clock in the morning while the chicks fill up on filth, dirty water, etc., to contract such a bad case of blues that he will feel like giving up in disgust.

Below are a few don'ts that will help us, who want to be among the successful money-making, poultry breeders, and if observed, will help us to meet many of the approaching dangers with our eyes wide open.

Don't forget to spray all roosting coops, brooder houses, etc., often with a good disinfectant.

Don't put over fifty chicks in a roosting quarter.

Don't forget to supply fresh, cool water.

Don't feed wet or stale food.

Don't fail to give first feed early in the morning.

Don't let baby chicks out in dew or wet grass.

Don't let half-grown cockerels and pullets run together.

Don't fail to examine often for lice.

Don't pattern after the unsuccessful poultry breeder.

Don't sell good breeders for half price to make room for others that are no better.

Don't wait until tomorrow to do that which ought to be done now.

Don't misrepresent your stock to prospective buyers.

Don't put too much confidence in hired help or children.

Don't think you have all the good stock of the varieties you breed, for you sold eggs from the same pens yours came from.

Don't forget to advertise. Let The Industrious Hen do some of your talking.—A. J. Lawson, Cleveland, Tenn.

Culling and Feeding Chicks

One of the most neglected duties in the poultry yard is the culling out process. The weak chicks will grow along after a fashion and come to maturity when they are lost sight of, and next year they go into the breeding yard to produce more weak stock.

While the chicks are young the weaklings, if not killed, should certainly be marked in some way. They should be sold or used while in good condition as they will be among the first to succumb to disease and at the most will be undersized and undesirable as breeders.

Flocks of young chicks can be graded to a good advantage—the undersized chicks seldom make a satisfactory growth if not separated from the larger, stronger ones, although they may be of the same age. A flock of undersized chicks will often pick up very rapidly if given a chance by being placed in a yard by themselves.

The longer they remain with the larger ones the more timid they become and the greater the contrast between their size and strength is manifested.

As soon as the sex can be determined it is best to separate the pullets from the cockerels. If the cockerels are removed at an early age they are not so quarrelsome and will grow and fatten much quicker.

It is folly to allow sick fowls to roam at large with the rest of the flock. They not only spread disease, but they will be annoyed by the stronger ones and will not get sufficient food or attention.

It is usually the most economical in the end to kill a bird that shows signs of disease, but in case of a valuable bird or some special pet an effort may be made to save it. It should be treated at the first signs of the disease or it will be difficult to effect a cure.

I am not in favor of much medicine used as a preventive; many tonics are apt to weaken one organ while benefiting another.

Feed the flock good, clean wholesome food, destroy all mouldy food and decaying flesh, give clean water to drink, keep the houses clean and free from vermin, and most flocks will do well and keep in a healthy condition.

I consider one of the important items in starting young chicks right is the proper withholding of food. Some of my chicks were not fed for 60 hours after they were hatched and they are unusually strong and vigorous, ready to push their way and look out for themselves as soon as put in the brooders.

For the first two or three weeks the chicks should be fed very often—but in small quantities—just what they will eat up quickly; a common error is to overfeed them. We delight in seeing them grow so fast, but the digestive organs rebel sooner or later and they "go to pieces."

They should be kept in such a condition that they will have a keen appetite and come flying for their food. This condition has other advantages, as chicks that will come running at the rattle of the feed bucket may be easily cared for in case of storm or danger of any kind.

My chicks are fed baby chick feed for the first ten days—night and morning—in the litter; during the day at intervals, one or two feeds of bread crumbs and hard boiled eggs chopped fine; and another feed which is varied—it may be oatmeal or rolled oats, or bran or milk curd, but I like them to have hard grain at morning and night. As they get to be ten days or two weeks old they seem to enjoy the larger grains and I add some whole wheat to the chick feed, and for the bread crumbs a dry mash is substituted.

L. H. READE,

in Southern Planter.

Sweetwater, Tenn., June 23, 1913.

The Industrious Hen Publishing Co.,

Knoxville, Tenn.

Dear Gentlemen:

I send check and copy for continuing my ad. I have sold birds in twelve states in the last six months directly from the small classified ad. you carry continually for me. This is the first time I have reached our friends in the North; but have sold in Pennsylvania and Illinois. My Black Langshans are the birds and your monthly magazine tells the people about them.

Yours sincerely,

JAMES R. BROWN

THE INDUSTRIOUS HEN

ONE YEAR 50c. THREE YEARS \$1.00

Devoted to the Interests of Commercial and Fancy Poultrymen
Entered at Knoxville, Tenn., Postoffice as second-class matter

S. B. NEWMAN & COMPANY.....Publishers

ADDRESS ALL CORRESPONDENCE TO

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225 Fifth Avenue, New York City.

Northern Advertising Representative—E. H. DePoy, Van-
Buren, Indiana.

J. Westley DeRees has purchased an interest in the Michigan Poultry Breeder, published at Battle Creek, Michigan, and we bespeak for the new management continued success in the field of poultry journalism.

Ordinary postage stamps may now be affixed to packages to be sent by parcel post, according to a ruling of the post office department, which became effective July 1st. The new ruling is a source of great convenience to every one, especially so to those who live in rural districts.

G. M. Bentley, Secretary of the Tennessee State Board of Entomology, with headquarters at Knoxville, has favored us with Bulletin No. 9, a treatise on "Beekeeping in Tennessee." The bulletin contains 64 pages and is well illustrated. Those interested in bee culture should write Prof. Bentley for a copy of this bulletin.

Plans are now being perfected for the Third International Egg Laying Contest, under the auspices of the Storrs Experiment Station of Connecticut Agricultural College. The two former contests have been the means of obtaining valuable information regarding the productivity of hens. The laying competition provides for the practical breeder the same opportunity to exhibit his skill and ability that the fancy breeder has enjoyed in the show room for more than half a century.

A Fine Egg Record

We are in receipt of a letter from Mr. and Mrs. J. M. McCloud, 523 Chickamauga Ave., Knoxville, Tenn., under date of June 7, 1913, in which they say:

"We consider 'Hen and Chicks' a most valuable book. When anything gets wrong with our chicks, we go to it for advice. Every poultry raiser should have a copy of it, and also 'The Industrious Hen.' We would not be without it.

"Now we wish to tell you about our chicks. We have as fine White Orpingtons as you will find anywhere in the country. Have sixteen hens, which laid 1,192 eggs from December 1st to April 1st. During that time they hatched 77 chickens. Our last year's pullets began to lay when they were from 4½ to 5 months old. They began to lay before Thanksgiving, and continued laying all through the cold weather, and while they were moulting. The eggs have all hatched well. We averaged 13 chicks out of each setting of 15 eggs.

"Last Fall we sowed a small space in rye and oats for green food. We feed corn cold nights, give wheat and oats for scratch feed in a straw litter, and keep dry bran in hoppers constantly before them. Give a wet mash once a day in winter, every two or three days in summer. Give salts

and sulphur occasionally, and also a few drops of turpentine in wet feed. Keep good dusting places. We raise all our chickens by the Philo system.

"Our expenses for feed during the four months was \$10.50, in addition to scraps fed them from the table, leaving us a clear profit of \$36.65.

"Hurrah for our 'Industrious Hens.'"

Poultry Husbandry in Our Universities

The Summer School of the Connecticut Agricultural College, Storrs, Conn., has a department of Poultry Husbandry conducted by Prof. Wm. F. Kirkpatrick. It is one of the practical courses offered in connection with the Summer School. For ten years this college gave a similar course each winter, and is being given again this summer in order to meet the wishes of many teachers as well as business and professional people who cannot attend during the winter months.

A number of State colleges have courses in Poultry Husbandry, and this branch of study is proving to be quite successful. It is high time that Tennessee and other Southern States fall into the line of progress and add this course in the State Universities. The Summer School of the South is in session at the University of Tennessee, Knoxville, and how we wish we could have announced a course in Poultry Husbandry in connection with the other courses of study. May we not be able to do so next year?

Mr. Goodlin Will Be There

The poultry show season opens the latter part of the present month in connection with the County Fairs to be held in various Southern States. As usual, Mr. F. A. Goodlin, our traveling representative, will be on hand at the principal shows to write subscriptions and advertising contracts for The Industrious Hen, and to greet his many friends of the poultry world. Be sure and see him, and if either your subscription or advertising contract is out, get the same renewed. Mr. Goodlin will also be at all Southern State Fairs and winter poultry shows.

Mr. Goodlin is authorized to receipt you for any arrearage on advertising account and for advance payments. He is provided with credentials, duly signed by the business manager, and all parties are hereby warned not to pay money to any one either for subscriptions or advertising unless they have properly signed credentials authorizing them to receipt for same.

THE INDUSTRIOUS HEN CO.

Poultry at San Francisco, 1915

An Advisory Committee of three prominent poultry breeders in each State in the Union has been appointed, charged with the duty of waking up an interest in the show at San Francisco in 1915, to the end that at least 12,000 birds will be displayed. English exhibitors have already made application for space.

The International American Dominique Club, with headquarters in Maine, is the first to offer supplemental premiums for poultry at San Francisco.

The Red Breeders' Club of the World announces that it will offer silver cups to be competed for by members during the Exposition. A like action in the matter of cash prizes and cups will doubtless be taken by most of the poultry specialty clubs in the United States.

The American Light Brahma Club has signified its intention of offering specials.

The American Rose Comb Brown Leghorn Club offers \$25 in special premiums with the intention of raising that amount to \$100.

The Crested Fowl Breeders' Association of America offers a silver cup and a number of special prize ribbons in the crested fowl classes.

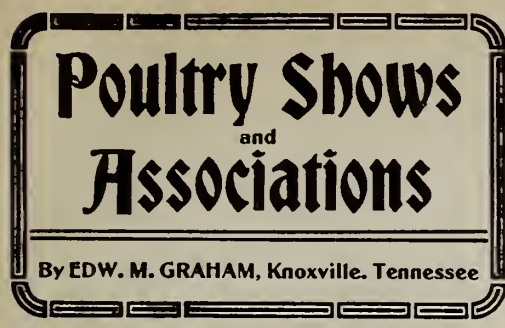
Truly an American Hen.

Mallet Creek, O., June 11, 1913.

Editor Industrious Hen—We notice The Hen has gone through moult O. K. and her new plumage is beautiful indeed. She always looked neat in her old plumage of white and blue, but now that she has the red, white and blue, she is truly an American hen, and, as the boys say, of a prize-winning strain.

Your friend,

S. P. PORTER



NOTICE TO SHOW SECRETARIES

This the largest Orpington Club in America, boosting the best Orpington fowl, the Black, will offer a set of 5 handsome medal silk ribbons at every show in the world. If you wish to have them, also our medals and silver cups you should write the Secretary-Treasurer at once. There are several state meetings to be placed yet. Do you wish them? The American Black Orpington Club has decided to offer at the Panama-Pacific World's Exposition Poultry Show at San Francisco 1915, the finest cup ever placed on poultry to be known as the world's cup, value \$100; several \$25.00 cups will also be placed, besides the many cash prizes and specials. If you fellow Black Orpington breeders do not belong to this club, send \$1.00 the fee for a year's membership to the secretary at once. The club is also preparing several sets of lantern slides for the American Poultry Association Lecture Bureau. Thus you see the immense amount of advertising that is being done to benefit the Best Orpington, the Black. Address, The American Black Orpington Club, Ora Overholser, Secretary-Treasurer, Eaton, Ohio.

The Preble County Poultry Association will hold their fifth annual show in Eaton, Ohio, February 2-7, 1914. Four previous rousing shows have been held under this management, thereby demonstrating that successful shows may be held by square dealing and barring those who are not square from the Association and shows. We expect 1000 birds this year, having the most elegant show room in the Central States. Will offer the largest cash prizes, and dozens of silver cups and specials. Secretary Campbell of the A. P. A., attended our show last year and commended it in highest terms. We coop your birds. Each month the Association is holding a special Poultry Institute to the pleasure of all poultrymen in western Ohio. Catalog will be out December 1, 1913. Let the Secretary put your name on the mailing list to receive this, the best premium list of the most popular show in western Ohio. Ora Overholser, Secretary Preble County Poultry Association, Eaton, Ohio.

During the week of September 15, 1913, in connection with the Rochester Industrial Exposition, there will be a Poultry Show held along the same general lines as those held in connection with the State fairs, etc. Competent Judges will award hundreds of dollars worth of prizes. The American Standard of Perfection will be the guide for the judges in awarding these prizes. A premium list is under

RICHARDSON'S ROSE COMB REDS

Winners at Madison Square Garden, Baltimore, Pittsburg, Hagerstown.
Catalog. Write Your Wants. Stock and Eggs

M. C. RICHARDSON, Jr. Member Red Club and A. P. A. FRONT ROYAL, VA.

DON'T FAIL TO SHOW YOUR BIRDS AND PET STOCK AT
Greater New York Fair and Exposition Shows Empire City Park NEW YORK August, 1913

Poultry Show, Aug. 4th-9th, Entries Close July 20th.

Pigeon Show, Aug. 11th-16th, Entries Close July 27th.

Bantam Show, Aug. 18th-23rd, Entries Close August 5th.

Pet Stock Show, Aug. 25th-30th, Entries Close August 12th.

There is no show in the world where a winning will mean more to the breeder. Over ten million people within one hour's ride of the Greater New York Fair and Exposition. Don't miss it. Send today for Premium Lists and Entry Blanks.

JOHN A. MURKIN, Supt. -:- Heidelberg Building -:- NEW YORK CITY

way, and exhibitors before making up schedules will do well to consider Rochester. Edgar F. Edwards is the Secretary, to whom all applications and requests for information should be addressed.

The South Carolina Poultry Association assumes the management of the Poultry Department of the South Carolina State Fair Association and will put on one of the most modern and up-to-date shows in the

SHOW DATES

Cleveland, Ohio (Forest City Fair), August 25-30, 1913.
Greater New York Fair and Exposition Shows, August, 1913.
Rochester, N. Y., Exposition Show, September 15-20, 1913.
National Conservation Exposition Poultry Show, Knoxville, Tenn., Sept. 23-27, 1913.
Lancaster, Pa., Sept. 30-Oct. 3, 1913.
Arkansas State Fair, Hot Springs, Ark., Oct. 27-Nov. 1, 1913.
Camden, S. C., October 28-31, 1913.
Cookeville, Tenn., November 4-6, 1913.
Shreveport, La., Nov. 5-12, 1913.
St. Louis, Mo., Nov. 25-Dec. 1, 1913.
Atlanta, Ga., Dec. 1-6, 1913.
Dyersville, Iowa, Dec. 2-6, 1913.
Bennettsville, S. C., Dec. 3-5, 1913.
Rochester, N. Y., "Flower City show," December 15-20, 1913.
Tampa, Florida, Dec. 29, 1913-Jan. 3, 1914.
Eaton, Ohio, February 2-7, 1914.
Marion, Ind., December 10-13, 1913.
Philadelphia, Pa., December 16-20, 1913.
Charleston, W. Va., January 8-14, 1914.

TENNESSEE FAIR DATES

Alexandria, Tenn., Sept. 4-6, 1913.
Athens, Tenn., Oct. 21-24, 1913.
Coal Creek, Tenn., Sept. 23-25, 1913.
Concord, Tenn., Sept. 9-12, 1913.
Cookeville, Tenn., Aug. 28-30, 1913.
Deer Lodge, Tenn., Sept. 23-26, 1913.
Fayetteville, Tenn., Aug. 27-29, 1913.
Gallatin, Tenn., Aug. 28-30, 1913.
Humboldt, Tenn., Sept. 17-20, 1913.
Jackson, Tenn., Sept. 30-Oct. 4, 1913.
Kingston, Tenn., Sept. 30-Oct. 3, 1913.
Memphis, Tenn., Sept. 22-27, 1913.
Morristown, Tenn., Sept. 3-5, 1913.
Nashville, Tenn., (State), Sept. 29-Oct. 4, 1913.
Newport, Tenn., Aug. 26-28, 1913.
Paris, Tenn., Oct. 8-11, 1913.
Rhea Springs, Tenn., Oct. 6-11, 1913.
Rome, Tenn., Aug. 14-16, 1913.
Selmer, Tenn., Oct. 14-17, 1913.
So. Pittsburg, Tenn., Oct. 14-17, 1913.
Spring City, Oct. 7-11, 1913.
Sweetwater, Tenn., Sept. 16-19, 1913.
Union City, Tenn., Sept. 10-14, 1913.
Winchester, Tenn., Sept. 2-5, 1913.

STATE FAIR DATES

Iowa State Fair and Exposition, Des Moines, Aug. 20, ten days.
Ohio State Fair, Columbus, Sept. 1, five days.
West Virginia State Fair, Wheeling, Sept. 8, five days.
Indiana State Fair, Indianapolis, Sept. 8, five days.
Kentucky State Fair, Louisville, Sept. 15, six days.
Tri-State Fair, Memphis, Sept. 22, six days.

Oklahoma State Fair, Oklahoma City, Sept. 23, ten days.
Missouri State Fair, Sedalia, Sept. 26, eight days.
Tennessee State Fair, Nashville, Sept. 29, six days.
Illinois State Fair, Springfield, Oct. 3, ten days.
Virginia State Fair, Richmond, Oct. 6, six days.
Alabama State Fair, Birmingham, Oct. 9, ten days.
Texas State Fair, Dallas, Oct. 18, sixteen days.
Georgia State Fair, Macon, Oct. 21, ten days.
North Carolina State Fair, Raleigh, Oct. 20, five days.
Mississippi State Fair, Jackson, Oct. 28, ten days.
Louisiana State Fair, Shreveport, Nov. 5, seven days.

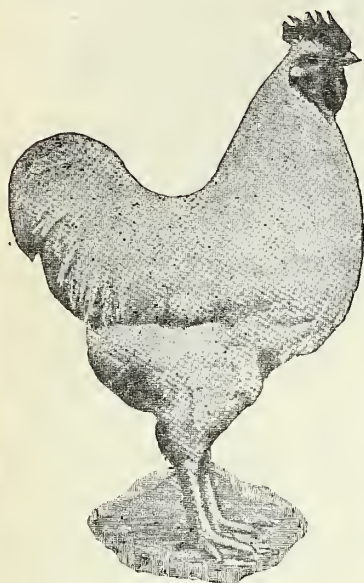
KENTUCKY FAIR DATES.

The following are the dates fixed for holding the Kentucky Fairs for 1913, as far as reported.

The following are the dates fixed for holding the Kentucky Fairs for 1913, as far as reported:

Mt. Sterling, July 23-4 days.
Harrodsburg, July 29-4 days.
Madisonville, July 29-5 days.
Uniontown, Aug. 5-5 days.
Taylorsville, Aug., 5-4 days.
Tri-County Fair (Carroll, Gallatin, Owen), Sanders, Aug. 6-4 days.
Danville, Aug. 6-3 days.
Blue Grass Fair, Lexington, Aug. 11-6 days.
Mt. Vernon, Aug. 6-3 days.
Winchester, Aug. 6-4 days.
Berea, Aug. 7-3 days.
Fern Creek (Beuchel), Aug. 12-4 days.
Burkesville, Aug. 12-4 days.
Leitchfield, Aug. 12-3 days.
Henderson, Aug. 12-5 days.
Brodhead, Aug. 13-3 days.
Perryville, Aug. 13-3 days.
Vanceburg, Aug. 13-4 days.
Hardinsburg, Aug. 19-3 days.
Lawrenceburg, Aug. 19-4 days.
Shepherdsville, Aug. 19-4 days.
Columbia, Aug. 19-4 days.
Erlanger, Aug. 20-4 days.
Stanford, Aug. 20-3 days.
Ewing, Aug. 21-3 days.
Eminence, Aug. 21-3 days.
Elizabethtown, Aug. 26-3 days.
Shelbyville, Aug. 26-4 days.
London, Aug. 26-4 days.
Nicholasville, Aug. 26-3 days.
Florence, Aug. 27-4 days.
Germantown, Aug. 27-4 days.
Paris, Sept. 2-5 days.
Alexandria, Sept. 2-5 days.
Fulton, Sept. 2-5 days.
Frankfort, Sept. 2-4 days.
Somerset, Sept. 2-4 days.
Bardstown, Sept. 3-4 days.
Barboursville, Sept. 3-3 days.
Tompkinsville, Sept. 3-4 days.
Franklin, Sept. 4-3 days.
Hodgenville, Sept. 9-3 days.
Monticello, Sept. 9-4 days.
Morgantown, Sept. 11-3 days.
Falmouth, Sept. 10-4 days.
Kentucky State, Louisville, Sept. 15-6 days.
Scottsville, Sept. 18-3 days.
Horse Cave, Sept. 24-4 days.
Bowling Green, Sept. 24-4 days.
Adairville, Sept. 25-3 days.
Paducah, Sept. 30-4 days.
Glasgow, Oct. 1-4 days.
Murray, Oct. 1-4 days.
Elkton, Oct. 2-3 days.
Hopkinsville, Oct. 6-6 days.

CHAMPION White Plymouth Rocks



1st Prize Cockrel—3rd Prize Cock

At Madison Square Garden, New York, 1912-13

This winning stamps our flock as one of the best in the world, and the undisputed Champions of 1912-1913.

At Chattanooga, one of the South's greatest shows held Dec. 16-21, 1912 we won every ribbon offered, all specials, and the following sweepstakes prizes, \$35 cup for largest number of prize winning birds, and the special for the best display in the whole show. Our S. C. White Leghorns are

BRED-TO-LAY

and they do lay. They are famous the country over for their great laying qualities. There are one thousand acres of land in the Shepherd Poultry Farm and the two breeds are kept strictly separated. Write for mating list. Correspondence solicited. Address

Shepherd Poultry Farm

Quintus Shepherd, Prop. E. C. Barnes, Mgr.

SHEPHERD, TENN.

THE SOUTH'S GREATEST POULTRY FARM

South this season. The dates are October 27, 28, 29, 30 and 31, 1913. The poultry building will be thoroughly remodelled, and new cooping put in. Expert poultrymen will be in charge, and the best of judges secured. New officers recently elected are as follows: President, H. E. Thompson, Columbia, S. C.; Vice-President, Dr. F. D. Kendall, Columbia, S. C.; Secretary-Treasurer, T. L. Little, Camden, S. C.; Assistant Secretary, R. S. Bollinger, Columbia, S. C.; Directors, E. L. Allison, Chairman, Columbia, S. C.; Wm. Maxwell, Columbia, S. C.; B. Frank Kelley, Bishopville, S. C.; F. D. Marshall, Columbia, S. C.; W. T. Huffman, Columbia, S. C.

The fifth annual exhibition of Spencer County (Ky.) Fair will be held at Taylorsville, Ky., August 5-8, inclusive. A number of handsome premiums are offered on poultry. For premium list, entry blanks, etc., write S. K. Baird, Secretary, Taylorsville, Ky.

America's leading and best poultry judges will do the judging in the poultry department of The Forest City Fair, Cleveland, Ohio, (Grounds North Randall) which will be held six days and nights the week of August 25th. The premiums offered amount to \$3,000. Spratt's Patent will coop and feed the show. This will be free to exhibitors. A liberal classification is provided and liberal premiums are offered in the other varieties of poultry as well as pet stock and pigeons. This will be the biggest midsummer poultry show Ohio has ever seen. Mr. Shepard Strong of Cleveland, Ohio, a well known and experienced poultry fancier will have charge of the show. A postal card request will get a premium list. Write H. J. Kline, General Manager, 1050 Leader-News Bldg., Cleveland, Ohio.

GREATER NEW YORK FAIR SHOWS IN AUGUST

Superintendent, John A. Murkin of the Greater New York Fair and Exposition Shows, scheduled for August 1913, announces the following judges. J. H. Drevestadt, Chas. D. Cleveland, J. Harry Wolsifer, W. H. Card, H. C. Dipple, G. D. Tilley, H. P. Clarke, Arthur O. Schilling, Geo. L. Young, W. J. Stanton, and Geo. Ewald. Several other judges will likely be appointed later. Mr. Chas. Pape of Fort Wayne, Ind., has been appointed Assistant Superintendent. Applications for premium lists are coming in from all over the country and the Greater New York Fair Shows, promise to eclipse anything of the kind ever held in the United States.

For information, premium lists, entry blanks, etc., address, John A. Murkin, Supt. Poultry Department, Heidelberg Building, Broadway and 42nd St., New York City.

A poultry show will be held at Winchester, Ky., August 6-8, under the auspices of the Central Kentucky Poultry Association. This show will be held in connection with the Hospital Fair, which is given for the purpose of raising money to help build a hospital in Winchester. The poultry premium list includes many specials. There will be a nice pigeon display also. Entries close August 6th. Write W. K. Cumming, Secretary, for premium list, entry blanks, etc.

THE BIG MEMPHIS SHOW

With larger cash prizes and more premiums than ever offered by any Southern show, Memphis is assured of the biggest and best show ever held in the South. It will take place September 22nd to 27th, and will be under the direction of the Tri-State Poultry Association. The Memphis boys know how to handle a big show and everyone who exhibits there may rest assured they will get what they win as every premium will be paid in full and promptly. Write C. B. Nelson, Secretary, 1773 Nelson Ave., Memphis, Tenn., for premium list.

The Northern Indiana Poultry Association will hold its second annual poultry show at Marion, Indiana, Dec. 10-13, 1913. The show held last year was a very successful one, but it is expected that the coming exhibition will far out-class it in the number of entries. Full particulars, entry blanks, etc., can be had by writing Frank Sherwin, Secretary, Marion, Ind.

The Putnam County Poultry Association will have their annual exhibition at Cookeville, Tenn., Nov. 4-6, 1913. Great preparations are being made to make this show one of the best in the South. Judges J. C. Vaughan, of Lebanon, and J. A. Dinwiddie, of New Market, will place the ribbons. Premiums to be offered in cash, and specials aggregate \$2,800.00. The birds will be uniformly cooped and fed free of charge. Send for their 100 page premium lists, ready July 15th. Full information can be had by writing J. W. Gillem, Secretary, Cookeville, Tenn.

SUMMER PRICES

on all orders for 100 and 200-egg size incubators received during June, July and August, we will accept at a 33 1-3 per cent. discount from our catalogue prices.

100-EGG SIZE.....\$13.33, NET

200-EGG SIZE.....20.00, NET

Take advantage of this saving and buy now and be ready for this fall's hatching. Write for our catalogue, if you haven't a copy.

Southern States Incubator and Brooder Co., : College Park, Ga.

Harrison's Intensive Poultry Culture Plans

Give Every Detail for Building Correctly—

The Four-Story Hen House (\$1.00); Hot Water Oats Sprouter (75 cents); Catch-and-Pass Trap Nest (50 cents); Automatic Dry-Mash Hopper (35 cents); Box Sparrow Trap (35 cents); Top-Pour Water Fountain (25 cents); Mite-Trap Roost (25 cents).

To the first person in each community, all the above plans will be sent for \$2.75. Each plan guaranteed. Address,

INTENSIVE POULTRY SUPPLY COMPANY -- David City, Nebraska

Harrison's volume, "Intensive Poultry Culture," 25 cents. Information on request.

"GIANT" STRAIN M. B. TURKEYS

If you wish toms or hens that have enormous bone and frame, fine trimmings, with brilliant bronze plumage; birds that have been bred for years and winners in our hands and customers hands at Louisville, Cincinnati, Chicago, Boston, Seattle, Atlanta and Indianapolis, our birds will suit you. We are booking orders for early shows now. Fine "Nugget" strain Buff P. Rocks of the finest quality—any number. Write us for prices and catalog.

J. C. CLIPP -- Box 700 -- SALTILLO, IND.

GREATER NEW YORK FAIR

Poultry Events in August Big Attractions

With over ten million people within one hour's ride of Empire City Park, New York, the poultry events scheduled for the month of August at the Greater New York Fair and Exposition, will be the most important events of their kind ever held in the United States. The Greater New York Fair Shows open the season. There is no show in the world where a winning will mean more to the breeder. A big list of cash, regular and special prizes, uniform cooping, special poultry building and America's foremost judges, everything down to the minute. Breeders cannot afford to miss this show. Every exhibitor allowed to place cards and advertising matter on coops, the moment the birds are caged for the show. Our judges are professionals in their line of work, and their integrity is not to be questioned. The best bird only wins at the Greater New York Fair and Exposition. The following events have been announced:

Poultry show, Aug. 4-9. Entries close July 20th.

Pigeon show, Aug. 11-16. Entries close July 27th.

Bantam show, Aug. 18-23. Entries close August 5th.

Pet Stock Show, Aug. 25-30. Entries close August 12th.

Send today for premium lists and entry blanks.

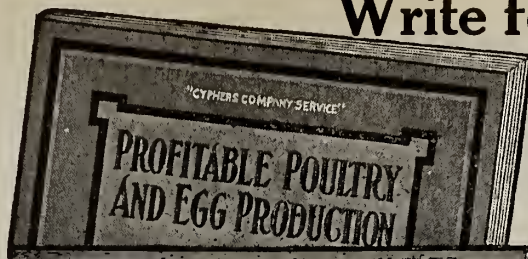
John A. Murkin, Supt. Poultry, Greater New York Fair & Exposition. Heidelberg Building, New York City.

The eighth annual show of the Philadelphia Poultry, Pigeon and Pet Stock Association will be held at Philadelphia, Pa., Dec. 16-20, 1913. The show will be held at the First Regiment Armory, and the prospects are bright for a most successful show; indications are that this will be one of the largest shows ever held in Philadelphia, and in fact it will be one of the largest shows in the East this year. The names of the Judges will be announced later. For further particulars write Frank E. Gilbert, Secretary, Mint Arcade Bldg., Philadelphia, Pa.

Judges Percy A. Cook and R. L. Simmons have been selected to place the awards at the Charleston (W. Va.) Poultry Show to be held Jan. 8-14, 1914. For entry blanks, catalogue and other information, address Julian C. Byrd, Secretary Charleston, W. Va.

The Annual Mercer County Fair will be held at Harrodsburg, Ky., July 29, August 1, 1913. One of the chief features will be the poultry exhibit. All varieties will be entered and handsome prizes awarded. Full information can be had by addressing Elmer Gabbart, Superintendent Poultry Department.

All secretaries of poultry shows are requested and urged to send us their show dates for publication, together with the names of the judges. Please do this at once if you wish your show listed.



well worth paying for—yet it is free. Also lists more than a hundred articles needed by progressive poultry keepers.

Everything For Poultry Keepers

Incubators
Brooders
Brood Coops
Chick Shelters
Brooder Stoves
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Napersol (Disinfectant)

Anti-Fly Pest
Egg Preservative
Fumigating Candles
Drinking Fountains
Grit and Shell Boxes
Food and Water Holders
Pigeon Supplies
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Bone Cutters
Chick Markers
Bone Mills
Root Cutters
Nest Eggs
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All guaranteed by Cyphers Incubator Company to give complete satisfaction or money refunded. Write today for free copy of "Profitable Poultry and Egg Production." Please mention this paper. Address Home Office or nearest Branch store.

CYPHERS INCUBATOR CO., Dept. 13, Factory and Home Office: Buffalo, N. Y.

Branch Stores and Warehouses: New York, N. Y., 23 Barclay St.; Boston, Mass., 12-14 Canal St.; Chicago, Ill., 329-331 Plymouth Ct.; Kansas City, Mo., 317-319 S. W. Boulevard; Oakland Cal., 2127 Broadway.

Poultry will be included in the exhibits at the eighth annual Burkesville Fair, to be held August 12-15, at Burkesville, Ky., under the auspices of the Cumberland County Fair Association. For full particulars and premium list write T. J. Lawhon, Secretary.

The poultry department of the Danville Fair, Danville, Ky., August 6, 7, 8, will be under the supervision of Nicholas McDowell, Jr., chairman. The poultry exhibit will be opened the second day of the fair and premiums are offered on all varieties. Write Mr. McDowell for a copy of the premium list, entry blanks, etc.

The seventh annual exhibition of the Breckinridge Fair Association will be held at Hardinsburg, Kentucky, Aug. 19-21. One of the main features will be that of poultry. Many premiums are offered on chickens, ducks, turkeys and geese. For premium list and full information write John M. Skillman, Secretary.

The St. Marys Poultry Club, of St. Marys, Pa., purpose holding their first annual poultry show at St. Marys, Pa., December 16-19, 1913. F. D. Lambert of St. Marys, Pa., is Secretary of the Club, and the show will be judged by Mr. F. V. L. Turner of Philadelphia, Pa. Write the Secretary for further information.

The Montgomery County (Kentucky) Fair Association will be held at Mt. Sterling, Ky., July 23-26, inclusive. As usual one of the chief features will be the poultry show held in connection with the fair. A handsome 88 page catalogue has been issued, and many valuable premiums are offered exhibitors. You should list this date in your itinerary and send a nice string of birds. Entries close July 19, so send at once for blanks, etc., to A. R. Turley, Supt., Mt. Sterling, Ky., R. F. D. 4. The judging will be done by comparison under A. P. A. rules, and competition is open to the world.

Write for Your Copy of the CYPHERS Book—FREE!

It is more than a catalog—is educational, helpful, valuable. Contains 244 pages—many of them filled with sound advice based upon the knowledge and experience of leading poultry authorities. Chapters on right methods, newest developments and proved results at the Cyphers \$75,000 Poultry and Demonstration Farm make this book than a hundred articles needed by progressive

\$200 A MONTH
Be Your Own Boss

If you are making less than \$50 a week, you should write us to-day. We can help you to wealth and independence by our plan. You can work when you please, where you please, always have money and the means of making barrels more of it.

HOW WOULD YOU LIKE to start out from home on a combined business and pleasure trip, stay at the best hotels, and live like a lord and clean up \$10 every day? Work at amusement places, crowded street corners, manufacturing institutions, anywhere and everywhere, ten minutes' walk from home or on the other side of the globe. Just set a machine up any place you happen to select, and clean up \$10 above operating expenses each and every day.

PAPER POST CARDS DIRECT

My proposition is the WONDERFUL NEW COMBINATION CAMERA, with which you can take and instantaneously develop eleven entirely different styles of pictures including Buttons, four styles and sizes of Paper Post Cards and six styles of Tintype Pictures. Every plate is developed without the use of films or negatives, and is ready to deliver to your customer in less than a minute after making the exposure. This REMARKABLE INVENTION takes 100 pictures an hour. Everybody wants pictures and each sale you make advertises your business and makes more sales for you.

NO EXPERIENCE NEEDED

Simple Instructions accompany each outfit and you can begin to make money in fifteen minutes after the outfit reaches you.

A trifling investment will get this WONDERFUL OUTFIT for you and put you in a position to make \$2,500 a year. If you want to be independent, and absolutely your own boss, write me to-day and I will send you by return mail, full free information regarding this WONDERFUL PROPOSITION, including letters offering positive proofs from every part of the world. DON'T DELAY. ANSWER THIS ANNOUNCEMENT TO-DAY. L. Lascelle, Mgr., 627 W. 43d St., Dept. 1101 New York, U.S.A.

GERMIFUGUE

In actual trial, has proven a wonderful UTILITY remedy and DRESSING in POULTRY YARD, KENNEL, STABLE and HOME.

KILLS POULTRY ILLS

by healing the diseased mucous membrane and destroying life.

Recommended by many leading poultrymen for Roup, Sorehead, Scaly-leg, Favus, etc., and for MANGE and EAR CANKER in Dogs.

1 pound tins by post.....\$1.00
2 ounce trial tins by post.....25

J. H. PETHERBRIDGE, Mfr.
Mt. Airy Sta., PHILADELPHIA, PA.

Where The National Conservation Exposition

Great Preparations Being Made For Knoxville's

Poultry Show Will Be Held, September 23-27

Judges and Secretary-General Manager Selected



Bird's Eye View of the Conservation Exposition Grounds



AT A MEETING held recently of the Executive Committee of the National Conservation Exposition Poultry Show, plans were suggested and discussed for making the coming poultry show, to be held September 23-27, one of the chief attractions of the great Exposition.

John E. Jennings was unanimously chosen as Secretary and General Manager of the show. Mr. Jennings is a practical poultryman, and was the efficient Secretary of the two former shows held in connection with the Appalachian Exposition in 1910-1911. A more capable man could not have been selected, and all exhibitors may rest assured that Mr. Jennings will serve them in a fair, courteous and impartial manner.

The following judges have been selected to place the awards: Reese V. Hicks, Topeka, Kans.; C. S. Byers, Hazelrigg, Ind.; D. M. Owen, Athens, Tenn., and J. C. Clipp, Saltillo, Ind. These gentlemen command the respect and confidence of the poultry world, and it goes without saying that the best birds will be sure to win in the hands of such competent judges. All judging will be by comparison under the A. P. A. rules.

An interesting feature of the show will be the Poultry Institute on Wednesday and Thursday nights, September 24 and 25. The institute will be conducted by S. T. Campbell, Secretary of the A. P. A., assisted by President Reese V. Hicks, and experts from the Bureau of Animal Industry, U. S. Department of Agriculture. Illustrated lectures on all important poultry topics will be given.

A special committee is now at work preparing a handsome premium list, which will be ready for mailing by August 1st. Do not fail to write John E. Jennings, Secretary, for a copy, entry blanks, etc. Do this now before you forget it.

Poultrymen from all sections of the country are invited to exhibit at this, the South's greatest exposition. A winning here will prove valuable to the exhibitor, for all prizes will be placed where they should go, and in strict accordance with the requirements of the Standard of Perfection.

In making up your show list this season be sure to include the National Conservation Exposition Poultry Show,

September 23-27, and remember that entries close September 10th, at midnight.

This show is being extensively advertised, and the management will spare no pains nor expense in making the coming exhibition one of the greatest to be held this season in the South.

Live Stock Exhibit, Night Horse Show, Agricultural Exhibit and Corn Show

A representative of The Industrious Hen recently called upon John A. Jones, Superintendent of the Live Stock, Agricultural and Poultry Departments, and Mr. Jones authorized the publication of the following statement:

"The prospects for a very large live-stock show are very encouraging. At the present time, giving a rough estimate, we have in sight at least 400 animals for the different classes. In the night horse show we have already assured animals from some of the best show stables in the United States. One encouraging thing to the live-stock department is the fact that the local breeders are taking a great interest in the show, and no doubt every animal in East Tennessee worthy to be exhibited will be seen at the show.

"The object of the live-stock committee is to make this department educational, to show to the farmers and others who are interested in a better class of live-stock just the difference between a well-bred animal and a scrub.

"There will be conducted, after the awards are made in the different classes, a Farmers' Institute, where lectures will be given by men of national reputation, and explanation will be made as to what points it takes in an animal to constitute perfection.

"In the Agricultural Department we have already assured ten counties. Some of the county displays will

be made from counties in other States; for instance, North Carolina, Kentucky, Alabama and Georgia. The same idea will be carried out in this department as we hope to carry out in the live-stock department.

"The corn show, which will come the week of October 6th and run through the Exposition, will, perhaps, be the largest corn show ever held in the South, outside of the National Corn Show that was held in South Carolina last year. In this class the premiums will be adequate to make it interesting to the corn growers throughout the South.

"We are featuring the Boys' Corn Club, and hope to have from 25 to 30 counties represented; however, it will take work and interest outside of what is being done by the Exposition people and the Agricultural and Live-Stock Committees. Just how great this show is will depend upon the encouragement that we are given by the farmers of the South, and we certainly hope that they will lend their aid as far as possible and help us show to the outside world just what the good old Southland can do in the way of giving a live-stock and agricultural show."

Entries in the live-stock department will positively close Saturday, September 20, 1913. This does not apply to the poultry show entries, which close midnight, September 10th. Further information as to the live-stock and agricultural exhibits can be obtained by writing John A. Jones, Chairman, Knoxville, Tenn. A 50-page premium list has been issued, offering \$14,000.00 in premiums for the live stock department alone, and there are premiums aggregating \$6,000.00 in the agricultural department.

DATES TO BE REMEMBERED

Agricultural Exhibit, September-October
Poultry Show, September 23-27
Live Stock Exhibit, October 6-11
Night Horse Show, October 7-8-9
Corn Show, October 6-11



JOHN A. JONES
Superintendent Live Stock and Agricultural
Departments

S. C. RHODE ISLAND REDS BARRED PLYMOUTH ROCKS

Strong, well-marked farm-raised birds. Eggs—\$2.00 per 15. A trio of **BARRED ROCKS** for \$5.00 a pen; of **S. C. REDS** for \$9.00. These are the last birds I will have for sale till fall.

OAKLAND STOCK FARM

A. S. BELL, Manager, Route 13, KNOXVILLE, TENN.



REYNARD

Weelaunee Mondaines Weelaunee Carneaux Weelaunee Maltese

The nobility of the pigeon world. A fine lot of young **unmated** stock for sale from the above breeders, at reasonable prices. Also **mated** and working breeders for sale. Best heavy squab breeders.

WEELAUNEE LOFTS

Porterdale, Ga.

Personal Stationery

Should be Engraved or Embossed nowadays.

It reflects good taste and at once creates a favorable impression.

Suppose you come and see the many beautiful samples we have and get our prices.

S. B. NEWMAN & CO.

617 Gay Street

Knoxville, Tenn.

S. C. White LEGHORNS

NO OTHER BREEDS

ADAM FISHER

Charlotte, North Carolina

Meyer's Champion strain of **BLACK LANGSHANS** have won in hot competition in such shows as Madison Square Garden, N. Y., Oklahoma City, Okla., Hamilton, Ohio, and Cedar Rapids, Iowa. Write for free circular and prices. W. A. Meyer, Bowling Green, Mo.



LICE KILLER Liceoil, strongest lice killing compound made. Works like magic. Simply put a few drops in nests and hang bottle in coop. Powerful evaporating vapors go into feathers, cracks and crevices. No painting, spraying or dusting. Easy to use. Circular free. Pound bottle prepaid 50c. Money back if it fails. Agents wanted W. H. Metzger Co., No. 199 Quincy, Ill.

Utility and Fancy Pigeons

By JOHN A. PORTER, Porterdale, Ga.

PIGEON TALK No. 1.

It is strange to say that very few people in the South have any idea of the wonderful development that has been made in the breeding of pigeons in the last few years, especially for squab purposes. Until recently pigeon breeding has been considered more of a pastime for the boys and girls and was given very little serious thought by men and women. If I had space I could show you dozens of letters from people who have gone into the breeding of pigeons, and who at one time thought, just as the general public in the South does today; that pigeons were in no sense to be considered seriously. Up to within a few years ago there was so much game in the South that there was no very great demand in the hotels and cafes for squabs, but as game has become scarcer and the laws governing the killing and marketing of same in most of the States are very strict, the demand for squabs has grown enormously; in fact far beyond the production. Two-thirds of the squabs used in the South are now being shipped from the North. Ask the hotel man how many he uses and where he gets them.

This state of affairs was realized in the North and East a good many years ago and in consequence there are hundreds of thousands of pigeons being bred in the near proximity of all of the largest cities. With this demand came also the demand for better and more economical breeds! The Homer was at one time considered to be the best squab-producing pigeon,

due to the fact that it is a rapid breeder. Its only objection being that it is small and not furnishing a sufficient meat course for a dinner.

The breeds that are now rapidly taking the place of the Homer, are the Carneaux, Maltese Hen and Swiss Mountain Mondaine. Squabs from these birds will run on an average about fifty to seventy-five per cent larger than the Homer, which is an ideal size, weighing twelve to fourteen pounds to the dozen. It has been found that these breeds can be kept on the same rations as the Homer and will produce as many squabs and of much greater weight. In fact, the hotels and cafes in the Northern cities are demanding squabs of this weight and pay a premium for them. All of the above breeds produce large double breasted white meat squabs of an excellent flavor.

I will guarantee to prove to the satisfaction of anyone interested in knowing the truth, that pigeons can be kept at a greater profit than poultry, provided high grade, pure-bred stock is obtained and the work given careful, intelligent attention and that it will not take half the work. Besides the breeding of pigeons is an extremely interesting occupation.

Some of these days I am going to publish in our pigeon section of The Hen, enthusiastic letters written to the editor by ladies who are making money breeding pigeons, with a view of giving the public a better idea of what is being done in the pigeon world.

At a meeting held by a number of prominent Southern breeders last year at the Southern International Poultry Show in Atlanta, there was formed what is known as The Southern Pigeon Association. The object of this association is to advance the interests of pigeon breeding in the South. This shall be done by giving pigeon breeding greater publicity, by interesting new people in the work, etc., and through the force of the organization, to secure better recognition for pigeons in the various shows throughout the South. Already some of the prominent show officials have recognized our strength and have promised better classifications and conditions for the forthcoming shows and other associations will fall into line. The annual membership dues are \$1.00, payable on or before March 1st of each year, which should be mailed to the Secretary, Hunt Clement, care the Equitable Building, Atlanta, Ga.

Continuity in Advertising

A merchant who places advertising in only a few newspaper issues is sometimes disappointed that large results do not immediately follow.

Modern life is crowned with interests, people live in a hurried way, and public attention is fickle. Let the advertiser consult the new science of salesmanship and business psychology. He will be told that nothing affects the mind like repetition. Constant dropping wears away the stone that is not affected by the single hard shower.

If a man of striking appearance passes by your place only at long intervals, you would scarcely recol-

BEST FOR
LAYERS

RAINBOW

BEST FOR
TABLE

PARTRIDGE ROCKS
THE ROCKWOOD FARM, BOX T NORWALK, OHIO

lect his features from time to time. If a person of ordinary appearance passes regularly for a short time, his face becomes firmly fixed in your mind.

The merchant who will advertise regularly, even if only a small space, will be surprised to see how the public will look for him in his regular position and be disappointed if he fails to appear.

The familiar name in the business news is greeted with as much pleasure as the familiar face that you meet on the street. Once interest is created by a man's methods of advertising, readers turn to it as to a serial story.—Useful Poultry Journal.

ADVERTISING THE FARMER.

The value of a trade-mark is recognized. We see a name on an article and we buy—not the name but the article because we know that the quality is associated with the name. Every manufacturer claims the privilege of stamping his name and address on every article put out by his firm. In England at Christmas time, the butcher shops are filled to overflowing with tempting joints, most of them bearing a neatly printed card stating that the mutton or the pig was bred and fed by such and such a farmer. This advertises the producer and is of as much advantage to the shopkeeper. Recently a buyer went to a warehouse and in 20 minutes handed over a check for \$3,500 for 700 barrels of apples. The warehouseman asked as to how he could inspect them in so short a time. The reply was that they did not need inspection because he had handled apples from the same grower for two years previous and found that AA meant AA and that the grower's stamp on the barrel was as good as a bond. Recently, we asked the price of eggs. "Thirty-two cents," said the grocer; "but I've got one dozen of Jones' eggs left that came in this morning that you can have at 40 cents." Jones' eggs were packed in a neat carton with his name and address on it, and each egg stamped with date when laid. "Wish I could get a number of half-bushel baskets of apples put up like those eggs. I've got to buy them in barrels and resort them now." Such examples are without end. Does it pay? Just ask Jones or the apple grower for the answer.—Poultry Life.

POULTRY CLASSES

The poultry which has been admitted to the standard of perfection is classified by breeds and varieties. The general purpose breeds, that is, the breeds which are good layers, and also furnish a good table fowl, are classed to themselves; the breeds which are grown specially for eggs without regard to table qualities, to themselves, and those breeds which are largely used for roasters form a class, as well as numerous other classifications and divisions. The first four classes furnish the bulk of the poultry, and

ROYAL BLUE AND LATHAM STRAINS BARRED PLYMOUTH ROCKS

Eggs greatly reduced, \$1.00 and \$2.00 per setting. This season's breeders for sale to make room for young stock. Write for prices and description.

BLTYE BROS., - Box B, - FRANKFORT, KY.

Single Comb Brown Leghorns

Winners produced by single mating plan. Our Leghorns have well-developed combs, the marking that will win, combined with size and the long backs that show vigor and laying ability. Young stock of all ages at 12 cents and up. Special prices on breeders.

STURTEVANT BROS. BROWN LEGHORN FARM, Box 12, KUSHLA, ALA.

DENSMORE'S Single Comb White LEGHORNS

WIN. LAY AND PAY

One thousand hens at bargain prices, to make room for our growing stock.

THE DENSMORE POULTRY FARM, Inc. -:- ROANOKE, VIRGINIA

are counted the most popular; the entire classification as given in the standard of perfection is as follows:

Class 1, American—Made up of Plymouth Rocks, all varieties; Wyandottes, all varieties; Javas, Dominiques, Rhode Island Reds and Buckeyes.

Class 2, Asiatic—Comprises Brahmas, Cochins and Langshans, in all varieties.

Class 3, Mediterranean—Consists of Leghorns, Minorcas, Spanish, Blue Andalusians and Anconas, including all varieties if more than one.

Class 4, English—Embraces the Dorkings, Redcaps and Orpingtons in all varieties.

Class 5, Polish.

Class 6, Hamburgs.

Class 7, French—Houdans, Creve Coeurs, La Fleche.

Class 8, Games and Game Bantams.

Class 9, Orientals—Cornish, Sumatras, Malays and Malay Bantams.

Class 10, Ornamental Bantams—Sebrights, Rose Comb, Booted, Brahma, Cochin, Japanese and Polish.

Class 11, Miscellaneous—Silkies, Sultans and Frizzles.

Classes 12, 13 and 14—Turkeys, ducks and geese in all varieties.

Cut out small eggs.

USES FOR EGGS.

We know that eggs are almost indispensable for cooking but they are just as valuable for other things as well. A mustard plaster made with the white of eggs will not blister the tenderest skin. The fragile white skin that lines the shell of an egg is a fine application for a boil. The white of egg beaten with loaf-sugar and lemon juice relieves a cough and hoarseness. A tablespoonful every hour is the dose. If a fish-bone lodges in the throat beyond the reach of the fingers, a raw egg swallowed (without being beaten) will in most instances carry the bone along. A good remedy for stomach and bowel trouble is a raw egg taken every six hours. The eggs should be partly beaten, though not to froth. A

little white of egg, spread over a scald or burn will prevent the air from getting to it and hastens the healing. For preserving jelly in glasses, paper should be cut to fit at the top and smeared with the raw white of eggs, the egg side down. A little white of egg curdled with a bit of powdered alum, will stop a sty, if used as soon as the sty appears. Be careful not to get the mixture inside the eye; it will do no injury, but it stings and is unpleasant—Journal of Agriculture.

Eggs contain all the elements necessary to supply the human body with nourishing food. This is not true of any other article of food. One-half of an egg is nutriment, while not more than one-fourth of meat is so. Thus it will be seen that one pound of eggs is equal in food value to two pounds of meat.

Ireland is the greatest poultry growing country in the world. It is far ahead of France, though we have always adopted the latter as the leading country in this industry. Ireland, with a population of not quite 5,000,000, has 14,000,000 fowls, while France, with a population seven times greater, has only 40,000,000.

The goose averages about 30 eggs.

8 Weeks Old Chicks

In trios and pens, as you want them.

**Quintessent
Anconas**

Winners Madison Square, Philadelphia,
Baltimore

H. E. PORTRUM

Box 13 Rogersville, Tenn.

S. C. WHITE LEGHORNS



I have 200 breeders for quick sale at BARGAIN PRICES. Cocks, cockerels and yearling hens.

CHICK-A-DEE FARM, J. A. Dinwiddie, Prop., New Market, Tenn.

200 S. C. W. LEGHORN HENS, 90c EACH

We offer these fine hens, just in their prime, at this low figure for quick sale. They are worth much more, but we must make room for growing stock. Act quickly. EGGS: S. C. W. Leghorn, \$5 per 100; \$45 per 1000; S. C. Rhode Island Red Eggs, \$6 per 100. Write us quick for special prices on entire flock.

DIXIE POULTRY YARDS -- Stevenson, Ala.



A GREAT OPPORTUNITY

to get M. B. Turkey Eggs at half price--the Best in the Land

Two magnificent flocks, unrelated. Can furnish eggs from both flocks in one order if desired. Price \$5.00 per doz. B. P. R. Chicken eggs, \$1.50 per 15. Order now from the reliable **MRS. J. C. SHOFNER, -- Mulberry, Tennessee**

Our Breeders and Their Birds

By EDW. M. GRAHAM, Knoxville, Tennessee

Mr. DeWitt C. Bacon has purchased the entire interest of Mr. George T. Haywood in the firm of Bacon & Haywood, Guyton, Ga., and announces that the business is now under his sole control and personal management. See his ad. on the outside cover page.

In this issue you will find the display ad. of White Hill Poultry Farm, Cleveland, Tenn., of which Lawson & Betcher are proprietors. They breed Lawson's exclusive strain of S. C. White Leghorns. These gentlemen are men of experience and business ability, and the fact that Mr. Lawson is one of the proprietors is sufficient guarantee that White Hill Poultry Farm will be one of the best and largest, modern and fancy poultry farms in the South. They not only have quantity but quality as well, and if you contemplate purchasing S. C. White Leghorns, be sure and write them before placing your order.

HAVE A SYSTEM, ALSO END IN VIEW WHEN MATING CHICKENS

Don't go chasing rainbows by mating your chickens just any old way and trusting to luck for the outcome. There will more than likely be an outcome, but the chances are that it will not please you. Have a system, and an end in view, and strive for that end with well laid plans; it will be much less trouble in the long run, and very much more satisfactory.

Isn't it queer how long some farmers will stand and talk at the fence and talk about nothing. These same

fellows are the ones who are always too busy with the farm work to even help the good wife make a chicken coop. Chickens don't pay, they say. We should say not if THEY had to do pleasant work like talking to the lightning rod peddler over the fence.

Some men's only object in life seems to be start something. They are always starting a new business from which they are confident they will make a lot of good money, but before they get very far down the road with their venture they are struck down with an everlasting attack of spinal meningitis, Bright's disease or some other back breaking trouble from which they hope never to recover. We find about as many of these optimists skirmishing about in the poultry business as anywhere else. It is true everything must be started if success is attained, but we like the long winded fellows. Those who hold on through thick and thin until the golden harvest time arrives. Most men who try to get rich quickly go broke in a hurry.

Nearly everyone could profitably keep a few fowls even upon their small lot. Of course under such conditions the ground should be thoroughly turned over and that quite often, too. In this way one can have fresh soil always on top which is essential to health. It costs less to have this turning of the soil done than to pay for expensive cholera and roup remedies, which often fail in their purpose. Just this one item goes a long way toward success where space is limited.

The up-to-date farmer is the man of the hour. He has already made a success of sheep, cattle and hogs. Such a man when he decides to take up poultry raising, will not fail. Why? Simply because he goes at it just like he is in the habit of doing with other live stock, using strictly business principles, with no thought of failure.

Where a number of hens become broody at the same time during the summer it is a much better policy to put them all together in a separate yard from the one they are accus-

tomed to, to shut away from all nest boxes, than to be a-quarreling with them and throwing them around all the time. They will soon forget all about their notion of being broody and get to laying again. A strip of bright red flannel tied about their necks, letting the long ends hang, will often break them instanter.

If your stock is yarded it is a good plan to separate your old hens from the young stock and the cockerels from the pullets as soon as the cockerels become to be troublesome. The young stock need bountiful rations to keep up their growth, while the hens, if fed that way would not lay an egg all fall. Of course, if the young stock can have a good free range they will do better than they would separated and confined.

A woman with a good level head for business usually makes a good poultry breeder. Most women are artists in selecting the right shades and blending of colors, and this goes far toward the making of a fancier. When it comes to preparing stock for the show room they can usually take the cake. Where the woman is a little delicate from close confinement or office work there is nothing that offers such a beautiful field as poultry raising. Of course some assistance will be needed for the heaviest work. All the detailed part of the work she can handle to perfection.

Do not use wooden troughs for water if you can get iron or earthen ware ones. The wood soon becomes sour and tainted from the stale water that is really not suitable for water at all—at least not in hot weather. A little money expended in getting an outfit of galvanized vessels with covers to prevent filth from getting into the water will be the means of avoiding the loss of much stock from disease by contamination. When once well fitted out you are fitted out for years to come.—F. J. Marshall, in Atlanta Georgian.

ANTAGONISTIC TO RACE SUICIDE

Theodosia Roosevelt, so named because of her evident antagonism towards race suicide, said to have been the oldest hen in America, died at the home of her owner, Mrs. Elizabeth Grinnell, of Pasadena, Cal. She was 25 years old. The aged hen laid approximately 7,500 eggs in her long and useful life, besides mothering many broods of incubator hatched chickens.

See that the young chicks have plenty of green food.

If you are through hatching, you should break up your breeding pens, and give your hens free range.

Don't Feed Green Food!

Do away with the bother by using **Succulenta Tablets**

They are better and cheaper and more relished by all fowl. Simply dissolve one tablet in one quart drinking water for fowl. Sample can (100 large tablets) by mail 50c. Can of 250 large tablets by mail \$1.00.

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Poultry Disease Department

By J. A. THORNHILL, Hartselle, Alabama

Q.—Please tell me what is the matter with my young chickens and what to do for them. Just as they begin feathering out, the down starts to come off their heads and continues to do so until their heads are almost bare. I have examined them carefully and found no lice.—E. A. B., Macon, Ga.

A.—If you found no lice after thorough examination you needn't feel at all uneasy. The feathers will soon take the place of the down anyway. Often Barred Rock chickens lose all the down in other sections of their bodies the feathers seemingly are ready to come out. There is a mite called the depluming mite that destroys the life of the feathers on poultry and unless one examines them thoroughly, they will not be discovered on account of their small size. Pure hog lard thoroughly rubbed among the feathers will destroy them.

Q.—As I have been unable to find anything in my reading to help me, I shall call upon you for aid. Have a hen setting now, that I have used before for the purpose and have never had any trouble with her. Now, however, she is eating her eggs. She has plenty of good food and water and I can't understand it. She has been laying regularly and I have never had this egg-eating habit among my chickens before. Please tell me what to do as early as possible and greatly oblige. Mrs. J. W. Hiscox.

A.—It is seldom the case, however it is a fact that hens will lay for years and all at once get into the dreadful habit of not only eating their own eggs, but any that may be laid in the yard with them. I have seen hens follow up other hens and as soon as the eggs were deposited into the nest or upon the ground, they would make a dive for them. At first it is a little trouble for hens to break the eggs, but after breaking several, they can break them very easily. One should feed an abundance of green food, oyster shells, and if the eggs are thin-

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shelled, some ground bone will work wonders. All nests should be so arranged that they will be dark and in a position that only one hen can go into them at a time. Setting hens occasionally break an egg, which should be immediately removed and the others thoroughly cleaned with warm water. Eggs should be often gathered so that the danger of their being broken will be lessened, and as soon as a hen is discovered in the act of eating eggs, her head should be removed from her body. There is a practice among breeders of valuable poultry which is to trim the beak until it almost bleeds; it becoming sore, prevents the hen from picking at the eggs.

Q.—I am writing to you again in regard to my chickens. I have over a hundred chicks from two months old to a few days old. Those yet with the hens are housed in dry coops with floor—a wire run also floored—opening into a yard in which they are fed. They are kept in this way until they are a week old, then allowed to run in the yard. The older ones are housed in an eight by fourteen foot house, good roof, back and ends enclosed. Front, which faces south, enclosed with wire. Floored one foot above ground. All coops and houses swept and cleaned. Sand sprinkled on floor every morning. Fresh water in clean vessels all the time. Chickens fed on hard boiled eggs and corn bread for first few days; then dry middlings and a ground feed prepared for small chicks. It is corn, wheat, rye, etc. The larger chicks have the same, only the corn being cracked. All grown chicks are healthy, but the small ones have been sick for ten days or more. I have lost several. Their wings droop and they work their bills and seem to be trying to swallow something. Their mouths are very slimy. In the droppings I often see worms, some as long as an inch, white and round. I attend to the chickens myself and give them every care. They have a large lot to run in and plenty of green food. Please tell me what to do for them, and oblige.—Mrs. A. T. F., Ala.

A.—Your chicks have indigestion, are, as you say, wormy, and are badly out of condition. No doubt the feed you are giving them is musty. They have canker of the mouth too, caused from the indigestion and the feed you are giving them. Rye isn't a very good grain food for poultry, and it may be the rye is causing some of the

trouble. I have had it to cause sore-mouth among my flock several times. Your plan of keeping your chickens is an ideal one, and I can see no reason unless it is the indigestion, or bad colds, which have terminated in a form of roup. Give the sick and well ones a tablespoonful of salts to each twelve chicks, and into the drinking water, add enough permanganate of potash to color the water a deep wine color. The permanganate crystals can be gotten at your local drug store. Have one-half the amount of potash, supplemented with boric acid. Dust the chicks well with a reliable lice powder. Give them fresh, cool water. Cut into fine bits all the green food they will eat and do not allow feed to lie before them all the time. With the above treatment, your chicks should get well in a few days.

INFECTIOUS DISEASES OF YOUNG CHICKS.

By D. E. Salmon, D. V. M., U. S. Department of Agriculture.

Young chicks are particularly susceptible to the attacks of the various microbes which cause disease in adult fowls, and the conditions of infection, the symptoms, and the preventive measures to be adopted vary to such an extent that they must be given special consideration.

White Diarrhea

This is a condition which has as its most prominent symptom more or less profuse diarrhea, the droppings consisting almost entirely of mucus from the intestinal tube and the white secretion of the kidneys. The diarrhea results from irritation of the intestines and the increased secretion of mucus, while the large quantity of white material secreted by the kidneys is due to fever and rapid breaking down of the elements of the tissues. This condition is most frequently seen with incubator chicks, but is also common with those which are hatched under hens.

Causation.—It has been found by investigation that the white diarrhea of young chicks is caused by at least four different kinds of infection, and each of these needs to be studied separately. All of these microbes also in-

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MILWAUKEE, (955 16th St.), WISCONSIN

EGGS=EGGS=EGGS

As the hatching season is now begun I know that you will want to buy eggs just as reasonable as you can, and also you would like to know that the eggs are from birds of good stock that has a record behind it. My S. C. BUFF ORPINGTONS and S. C. BLACK MINORCAS have won in four State Fairs more blue ribbons than all the competitors combined. Of this stock I can sell you eggs, S. C. Buff and Black Orpingtons, at \$2.00, \$3.00 and \$5.00 per setting of 15. From the S. C. Black Minorcas I can sell you eggs at \$2.00, \$3.00 and \$5.00 per setting or \$10.00 per 100. We guarantee 75 per cent fertility. These birds were all hatched and raised at the Kenmore Poultry Farm.

Kenmore Poultry Farm

Maxey Lane and Gallatin Pike :- :- Nashville, Tennessee

fect adult fowls and are generally communicated directly or indirectly from these to the chicks.

The most common cause of the disease is a bacillus called *Bacterium pullorum*. This often infects hens and also the eggs which they lay. Such eggs produce chicks which have the germs of the disease within when they are hatched, and these chicks show symptoms within the first few days of their lives. The contagion may also be communicated from chick to chick by means of the microbes scattered with the droppings, which contaminate the food and drink, and cause the appearance of the symptoms when the birds are from 1 to 2 weeks old. The chicks are most susceptible to infection the first 24 hours of their lives, are more resistant during the second and third days, and are practically insusceptible after the fourth day. Those that sicken later must have taken the microbes into their bodies before they reached that age. Incubators and brooders, as well as coops, become infected and preserve the contagion indefinitely. Adult fowls are resistant to this microbe and do not show any symptoms even when they are laying infected eggs.

The cholera bacillus may also be carried by laying hens and infect the egg before it is laid. The young chick hatched from such eggs soon show symptoms of disease and communicate the contagion to others at all ages.

The coccidia which cause a chronic disease in adult fowls may also infect the eggs and cause disease with similar symptoms in the chicks.

The aspergillus fungus is the fourth

cause of white diarrhea. It occasionally is included in the egg when it is laid, but it may also penetrate the shell when eggs are packed in moldy chaff, straw, or grain, or allowed to get damp.

All of these microbes may also be carried on the outside of the shell, and may infect nest boxes, incubators, brooders, and yards where disease chickens have been.

Symptoms.—The symptoms of white diarrhea are seen in young chicks which are from a day or two to 3 or 4 weeks old. In the most acute form they may die suddenly after having shown but slight symptoms for a short time. Generally, however, there is first observed a disposition to huddle together and to remain under the hover or under the hen more than young chicks should. Very soon they appear listless, indifferent to what is going on about them, stupid, and sleepy. They stand in one position or sit still with the eyes closed, and the few efforts which they make to pick up food appear mechanical and unsuccessful. Their plumage loses its luster, the wings droop or project slightly from the body, and the characteristic diarrhea soon appears. The droppings which are voided may be white and creamy, mucilaginous and glairy, or they may be mixed with a brownish material. Often the sticky excrement adheres to the downy feathers about the vent, dries, and continues to accumulate until it completely covers and plugs this opening. This condition, known as "pasting up behind," will, unless soon relieved, bring about the early death of the chick.

Many of the diseased chicks chirp or peep almost constantly, and when attempting to void the excrement they may give utterance to a shrill cry, as if the effort brought on paroxysms of pain. As death approaches the breathing becomes labored, and the abdomen heaves with each breath. Often the disease is of a more chronic type and has a longer course. The young birds with diarrhea gradually waste away, become weaker and more

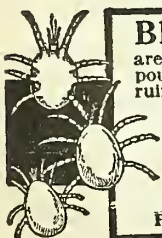
emaciated until their legs are scarcely able to support their bodies. They try to brace themselves by standing with the legs apart or they rest against a wall or other object for support. Many of them have the peculiar form of body called "short backed," which results from the distention of the abdomen and its projection backward, which makes the back appear too short for the body. Toward the last the strength is completely exhausted, and the chick sits constantly or lies on the side with outstretched wings until it dies.

The most prominent and characteristic symptoms in nearly all cases are the white diarrheal discharges and the rapid wasting away of the affected birds. The losses vary from 50 to 80 per cent of the chicks hatched. Sometimes it is impossible to raise any of them.

Treatment.—The medical treatment of affected chicks is impracticable, as it is too expensive and has very little effect on the course of the disease. The birds may be given sour milk or buttermilk to drink, or, lacking this, 15 grains of powdered catechu may be added to the gallon of drinking water.

The preventive measures should begin with the eggs used for hatching. If these are purchased they should only be accepted from flocks known to be healthy, and the eggs of which give rise to healthy chicks. If this assurance can not be obtained, it is better to produce the eggs needed for hatching on the home farm and from hens that are known to be free from infection.

Having obtained the eggs, they should be kept until ready for incubation in a dry, moderately cool place, so spread out that the air can circulate over them and carry away the moisture which they exhale. They should not be placed in hay, straw, chaff, or other substance liable to become musty or moldy. Before putting them into the incubator or under the hen they should be wiped with a cloth wet in grain alcohol of 70 to



Bloodsucking Mites

are the hot weather scourge of the poultry yard. Kill the pests before they ruin your flock. Use

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80 per cent strength to remove any germs that might be on the surface of the shell. The hens used for hatching should be free from all infection and the incubator should be thoroughly cleaned. If there have been any sick chicks in it, it should be disinfected by washing with compound solution of cresol (5 per cent solution.) The same precautions should be adopted in regard to the brooder.

If the hatching is done by a hen the brood should be put upon fresh ground, and any chicks which sicken should be immediately removed and isolated or killed. By removing frequently to fresh ground or by frequent disinfection the disease may sometimes be limited to a few individuals.

If the hatching is done in an incubator and there is reason to suspect that the disease may develop, it is well to divide the trays and the brooders by light partitions so that not more than 4 to 6 chicks will be in one lot and exposed to each other. If white diarrhea appears in any of these lots, such lots may be removed and the places which they have occupied may be disinfected. After four or five days the partitions may be removed and the healthy lots of chicks put together. In this way the greater part of the chicks are protected against the most common form of the disease.

Brooder Pneumonia

This is an inflammation of the lungs caused by the growth of the aspergillus fungus in the smaller air tubes and in the lung tissue. It is believed that it may occur from infection carried within the egg. Whether this infection is derived from the hen or from the material in which the eggs have been packed is not definitely known, but the latter method of infection is the more probable. The fact of the lungs being the principal seat of the infection indicates that the spores in most cases are inhaled with the breath and germinate at or near the points where they are deposited. The inference from this method of infection would be that the incubators or brooders, or both, had been allowed to get filthy and moldy, and that the atmosphere in these was filled with aspergillus spores.

The symptoms are very similar to those described as present in white diarrhea, but the breathing is more rapid and difficult and is sometimes accompanied by sounds due to obstruction of the air tubes. The disease is not generally distinguished from white diarrhea, as this symptom (white diarrheal discharges) is usually present in the lung disease as well as in the intestinal infection.

The sick chickens can not be cured and therefore all the efforts must be directed toward prevention. The measures mentioned for the prevention of

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white diarrhea are applicable to brooder pneumonia, but if the disease has once occurred among the chicks special care must be given to the cleaning, disinfection, and drying of the incubators and brooders before they are again used. It is probable that this disease is generally due to failure to maintain a proper degree of cleanliness.

SINGULAR PLURALS

We'll begin with a box, and the plural is boxes.
But the plural of ox should be oxen, not oxes;
Then one fowl is goose, but two are called geese,
Yet the plural of moose should never be mecse;
You may find a lone mouse or a whole lot of mice,
But the plural of house is houses, not hie.
If the plural of man is always called men,
Why shouldn't the plural of pan be called pen?
The cow in the plural may be cows or kine,
But a bow, if repeated, is never called bine;
And the plural of vow is vows, and not vine;
If I speak of a foot and you show me your feet,
And I give you a boot, would a pair be called beet?
If one is called tooth and the whole set are teeth
Why shouldn't the plural of booth be called beeth?
If the singular is this and the plural is these,
Why shouldn't the plural of kiss be called keese?
Then one may be that, and three would be those,
Yet hat in the plural would never be hose;
And the plural of rat is rats, and not rose.
We speak of a brother and also of brethren.
But though we say mother, we never say methren.
Then masculine pronouns are he, his and him,
But imagine the feminine, she, shis and shim!
So the English, I think, you all will agree,
Is the most wonderful language you ever did see.

—San Francisco Call

COLOR OF EGGS

It is generally understood that the non-sitters lay white-shelled eggs, and that the sitters lay brown-shelled eggs. This is not always so; that is, we have known a Langshan hen lay an egg on one day almost white, and on the following day one almost chocolate. Again, Dorkings commonly lay cream-colored eggs. Games do the same. All of the Eastern fowls lay dark-shelled eggs, but sometimes from causes beyond our ken, they will for days lay light and nearly white eggs. It is said by many, and we are not disposed to treat their theory lightly, that the shades of color in an egg are influenced by temperature. We should not doubt the purity of the birds, and should not hesitate to set their eggs.—The Feather.

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White Indian Runner Ducks

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ABOUT HIS

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THE INDIAN RUNNER DUCK

It is only comparatively a few years since the Indian Runner ducks made their appearance in America. They came originally from the West Indies, where they have been raised for years, chiefly as egg producers. They derive their name from their native land and racy, upright carriage.

In color they are fawn and white, with yellow shanks and light green bill; the latter being sometimes splashed with black.

The body is long and narrow and is carried in an almost upright position. Neck is long and thin, with finely formed head.

The Indian Runner is rather small, fully matured ducks weighing from 4 to 5 pounds. Drakes from 5 to 6 pounds, live weight.

But they grow very rapidly while young and are easy to raise. What they lack in weight is more than made up for in their other good qualities.

To begin with, they are very prolific layers; beginning when about six months old. Their eggs are pure white and a little larger than those of a Plymouth Rock hen.

They are superior in quality to any duck's eggs that we have ever eaten, and as a rule, they bring higher prices in the market.

The ducklings reach a marketable size when about 12 weeks old. When forced they will weigh 4 to 5 pounds at two months.

The meat of the Runner is of superior quality; fine in the grain, juicy, and excellent flavor. Hotels and restaurants pay fancy prices for ducklings.

The eggs are in good demand, also. In winter when eggs are high the Indian Runner is "on the job." Any enterprising person can work up a trade among hotels and restaurants that should prove highly profitable.

There is no great danger of strong competition, as comparatively few poultry raisers have taken up this branch of the industry, notwithstanding the fact that nearly all kinds of poultry products are bringing unheard of prices in the open market.

Duck culture in the past has been more or less neglected, owing to the general belief that ducks cannot be successfully raised without a stream or pond of water. The fact is, however, that the Indian Runner requires only sufficient water to drink.

They are small feeders as compared with other ducks. One Pekin will consume as much feed as two Runners, and then not be satisfied. Unlike the former, they are great foragers.

In summer the Indian Runner when given free range will find the greater part of his living in the fields, but of course when being fattened for market they need some grain. It would be well to say right here that for best results the grain should be either ground or cooked.

A great many would-be duck raisers fail, because they insist upon feeding the ducks both old and young, whole grain.

The matured birds can get along but the young ones most certainly can not. Don't try to raise ducklings on whole wheat, cracked corn and "chick feed." They simply cannot digest it. About the only kind of grit that a young duck will eat, is sand; and whole or cracked grain requires something sharper than sand to grind it.

Those who have Indian Runner ducks would do well to keep them over winter and see what they will do toward keeping the egg basket filled when biddy is on a strike.

Begin by culling out all the surplus drakes and undersized specimens. If the ducks are expected to furnish eggs next spring for hatching purposes, now is the time to procure drakes from some other flock.

It is not a good plan to keep closely related birds. One drake for every seven or eight ducks is about right.

Drakes may be kept for seven years, but ducks will not lay so well when of that age. Few duck raisers care to keep old drakes unless they happen to be high priced birds.

In many sections Indian Runner ducks are so scarce that food specimens bring almost any price asked.—Anna Galigher, Ohio, in Birmingham Ledger.

Geese do not thrive when yarded; ducks do.

The goose, like the duck, has practically no crop.

SNOWFLAKE WHITE INDIAN RUNNER DUCKS

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Prize Winners Always. Heavy Layers of Pure White Eggs. Breeding and Young Stock for Sale

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LESSONS LEARNED

The following valuable information has been compiled from the report of the National Egg Laying Contest:

We haven't time or space to go very deep into this subject. We will simply mention a few of the things which we have gathered from the records and from general observation. We feel that we can safely say:

That there is no variety or breed which far excels other varieties or breeds which are in general use as far as egg production is concerned.

That more depends upon the strain or breeding of a variety as to the number of eggs it will produce than upon the variety itself.

That some hens have a born tendency to lay and others have a born tendency to put on fat. The latter kind should be culled out in establishing a laying strain.

That more depends upon the breeding of the male as to the number of eggs the offspring will produce than upon the female, yet it will pay to breed from your best layers in preference to the poorest.

That you should select the variety which suits you best as to color, size and shape, and breed them up until they satisfy you as to quality and productiveness. You make a mistake by jumping from one breed to another trying to discover a better layer.

That it will pay the average poultryman to trap nest his flock in the fall and winter months and breed from the pullets which lay earliest in life and from the pullets and hens which lay in the winter.

That the style of house used in this contest is one of the most satisfactory styles of houses for this climate. We find it cool in summer and comfortable in winter, convenient and properly ventilated.

That hens like sprouted oats as much or better than any other green food, and they do well on it; it aids digestion, and increases egg production.

That a little moistened food is relished and will slightly increase egg production.

That many high producers lay thin shelled eggs, and that the germs are often weak. A few high producers are able to lay large numbers of eggs, fertilize them, and put vitality into the chick.

That the Mediterranean Class can stand more protein and fattening food than the birds of the American, Asiatic or English classes. There is not so much danger of the Mediterraneans becoming too fat, and they require a richer food than the other classes mentioned.

That the egg yield from Mediterraneans is affected by extreme cold more than the other classes of fowls, because of the fact that they are closely feathered, larger combs and smaller bodies.

That if you give a hen reasonably good shelter, feed and attention, she will net you a reasonable profit if she has been properly bred.

That the purpose of properly feeding and housing a hen is not to feed eggs into her body, but to so feed and care for her that you may get out of her the eggs which breeding has plac-

"Woolley's Gone Crazy"

That's what they said when I moved out here to raise chickens. Ask 'em what they think now. Read the whole story in our free catalog of "All Wool" Buff Leghorns and White Rocks. Eggs half price now. Fine breeders going at "fire sale" prices.

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on all eggs reduced to half price from all of our birds. We are breeders of Black, Buff, and White Orpingtons, Barred and White Plymouth Rocks, S. C. White and Brown Leghorns, White Wyandottes, White Indian Runner Ducks and Buff Orpington Runner Ducks. This is your chance to get quality goods for the lowest price. Satisfaction guaranteed.

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ed there. Proper feeding, housing and care have a bearing on the number of eggs produced by a flock, but breeding is the most important factor.

That hens must be fed and fed liberally if you expect eggs in large quantities, especially if you expect winter eggs.

That regularity in feeding is very essential.

That hens must not be excited or chased, but should be handled in a quiet, gentle manner at all times.

That rape will color the yolk of the egg green, and onions or fish scrap will cause the eggs to taste of these if fed in too large quantities.

That the ground should be kept fresh, shade provided in the hot summer months, and the house kept clean. The hens can not do well if covered with vermin.

That most high layers will lay practically all the color out of their legs and plumage in one year.

That hens lay a few more eggs when males are not used in the pens with them.

That most good layers moult late in the season. They look tough, dirty and weatherbeaten as a rule as a result of their hard year's work, but

the poor layers spend their time in dressing up and putting on a beautiful coat of feathers.

That the best producers have broad bodies. The back is broad and the ribs are widespread, giving plenty of room for the egg organs and digestive organs. Their bodies are solid and the birds are not loose jointed, but compactly built.

That good layers are big eaters. A bird must have capacity to eat and digest a great amount of food if she is to lay a great number of eggs.

That a big decrease in the egg yield in winter months can be brought on more quickly by great variations in temperature, sudden changes in weather conditions, than by continued or prolonged spells of either cold or rainy weather.

That it will pay to keep a good hen until she is four years old. We had several hens four years old which laid over 150 eggs each.

That most of the high producers have good-size combs for birds of their variety.

That the method of feeding may not be the best, but the hens certainly liked the mash used, ate great quantities of it, and if you are to get best

Books for Poultrymen

For a year's subscription to THE INDUSTRIOUS HEN, add 25 cents to the price of any book listed below.

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An all-round good book of information that is worth \$5.00 to any man in the poultry business. It gives facts and figures. No use experimenting all the time; profit by the other fellow's mistakes. Money returned if not pleased. 2d edition. 300 pages, 5 1/2 x 7 1/2, illustrated. Price 50 cents.

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Origin and history of both the Rose and Single Comb varieties. How to mate for best results, by leading breeders of Rhode Island Reds. Edited by D. E. Hale, judge and breeder. Color plate of feathers by F. L. Sewell. 88 pages, 9x12, illustrated. Price 75 cents.

The Plymouth Rocks

A complete text book devoted to America's most popular breed of standard fowls. Explains standard requirements, tells how to select the right breeders and how to mate them. Edited by Wm. C. Denny and J. H. Drevenstedt, breeders and judges of wide experience. Three color plates by Sewell. 160 pages, 9x12, illustrated. Price \$1.00.

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Used as a text book at Cornell University. Shows plans of low cost, practical and labor-saving houses, designs for inside fixtures, roosting coops and coops for young chicks, and appliances for the poultry yard. 7th edition. 96 pages, 9x12, illustrated. Price 50 cents.

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Mr. T. F. McGrew, judge and breeder, tells how to house, feed and grow Bantams, how to treat diseases, how to select and fit for the show. 72 pages, 9x12, illustrated. Price 50 cents.

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Guide to success in rearing chicks. Experienced poultry raisers furnish information on all problems connected with the breeding, rearing, developing and fattening of chicks. Article and chart on line breeding. The day-old chick business, etc. 1910 edition. 80 pages, 9x12, illustrated. Price 50 cents.

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Contains valuable information for breeders of any variety. Suitable for amateur and fancier. Articles by best breeders and judges. Color plates of S. C. White Leghorns and Brown Leghorn feathers by F. L. Sewell. 144 pages, 9x12, illustrated. Price \$1.00.

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results from the hen, she must have a food which she relishes.

That there is much room for improvement in all varieties and breeds as far as egg productions is concerned, and it is up to the breeders of this country to get busy. There are wonderful possibilities along this line.

TELLS BEST METHOD OF FEEDING YOUNG CHICKS

A good quality of rolled oats is suggested as an excellent first feed for chicks by the poultry husbandry department of the Oregon Agricultural College. Bread crumbs or stale bread soaked in milk and squeezed dry are also very good. Another good feed for the first few days is a raw egg mixed with bran and a little shorts or middlings, fed in a crumbly condition twice a day. Any of these may be fed twice a day with the addition of cracked wheat and cracked corn.

Until the chicks have learned to eat, the food should be given on clean sand. After a couple of days the cracked wheat and corn should be fed in chaff so as to make the chicks scratch. The depth of the chaff should increase with the development of the chicks.

After the first week the bran and eggs or bread and milk should be discontinued and in its place a mash of bran and shorts or bran and middlings with ground corn (about three parts bran to one of middlings, and one of corn) should be fed.

If the ground corn is too high priced, finely ground wheat may be used, and later finely ground oats, with a pinch of salt and enough milk or water added to make a crumbly mixture.

As much as the chicks will clean up readily in an hour or less should be given once a day. The cracked grains in the chaff should be fed until the chicks are six weeks old when whole wheat may be given them. The soft food should not be left in the feeding troughs after the chicks have had all they will eat.

A dish of charcoal should be kept where the chicks can get at it all the time, and a small dish of dry middlings will provide a good cure for ordinary diarrhea.

When the feeding of the egg is discontinued beef scraps should be substituted in a box or hopper where the chicks can help themselves any time. The feeding should be planned to keep the chicks busy most of the day.

As much range as possible on fresh ground should be given the very little chicks. They should be kept clean and free from mites.

A little hamburger steak once a week is good for your chicks.

Keep them out of the sun and preserve their natural plumage.

In order to properly develop your youngsters they should have clean, fresh water before them at all times.

If you intend making any of the early fairs, now is the time to begin working on your old stock.

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PECULIARITIES OF YOUNG CHICKS

Persons who commence breeding thoroughbred chickens of different kinds find many puzzling things when their youngsters come out of the shell and begin to develop.

The color is so often not what they are looking for. Take, for example, the Barred Plymouth Rock, which I bred for many years. Letters would come to me like this: "From those eggs you sold me there have just hatched a lot of chicks with white spots on their wings, top of head and back. The balance are solid black. They certainly were from some mixed breed."

Now, such a letter is very natural, coming from a novice, and it is pretty hard to explain unless the party has a whole lot of confidence in you and is willing to take your word for it, that such is only the color of the down and will be replaced by a barred plumage when the real feathers come in. Even these first chick feathers do not have the markings that will eventually adorn the specimen after its first moult.

Wing Feathers Tipped

The wing feathers will more than likely all be tipped with about two inches of solid white. These feathers will be long, sharp pointed and not well folded.

The Silver Wyandottes, Silver Spangled Hamburgs, Houdans, Dominiques, etc., present similar colors when hatched. The novice with his first clutch of black chicks of almost any variety is astounded to find the youngsters with white or yellow breasts, white on top of head, etc. He is sure he is the victim of a swindling game at a long price. But it all disappears in time.

Most of the black breeds show a good deal of white in the wings as

GABHART'S WHITE LEGHORNS

With ten years experience in line breeding this one variety, we feel our claims are entitled to your consideration. We have won at nine of the largest shows and 3rd in the International Egg-Laying Contest, Frankfort, Ky. 400 utility pullets for fall delivery, old and young stock for any competition. Cock birds \$2 and \$3. W. E. GABHART, Box M, Bohon, Ky.

HEN & CHICKS

long as the chick plumage is on, but comes in sound and all right with the adult plumage. At times it shows some in the latter, while the feathers are soft and fresh, but disappears when they dry out and are fully matured. The breeder of many of the white breeds, such as Rocks, Wyandottes and the like, finds his youngsters hatching gray or drab in color. Of course, all do not come that way, but those that are going to be the purest white when matured will be that way. It is very puzzling, too. One not used to the game looks at them with disgust, but they really turn out to be nearer white than those hatching a cream color. Brown Leghorns hatch with stripes of about three different colors down their backs, resembling the color of the ground squirrel very much. In good stock all this will change to about the right color as the feathering process goes on. They, too, often show much white in the wings of chick feathers, disappearing later on. Right here let me say that the rapid development of chicks is the keynote to success, both in shape and color of plumage obtained.

Health and Color

Take, for example, two settings of eggs from the same pen, let the chicks from one setting be pushed to maturity under the most favorable conditions, growing every minute of their existence up to that time. Let the other be subject to all kinds of experiments

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If it is Orpingtons of size, type and quality you are looking for, I have them.

Eggs for hatching from my grand birds, \$3.00, \$5.00, \$7.50 and \$10.00 per 15.

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Eggs from choice pens. A few fine males and yearling hens to spare. Tell me what you want and I will please. -J. & J. Poultry and Stock Farm, James L. Wood, Prop., R. F. D. 1, Pennsburg, Pa.

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in feeding and care, some of it good, but a good deal of it not what they need.

If you have never noticed these differences, you will hardly be able to understand why one lot of chickens will be bright, beautiful and correct in color, or nearly so, while the neglected lot will look like they had been pulled through a knothole backwards. We have put out some of our best Brown Leghorn eggs to neighbors for raising upon shares. Some would give us magnificent colored youngsters in the fall, while others who did not know how to handle growing chicks would present a lot of trash, full of white in wings, tail, etc., that we would almost declare never came out of our fine eggs; but they did. Please remember this you who buy expensive eggs for hatching. If you are not able to raise them to maturity in the best possible manner, securing the best there is in them, do not get up and call the breeder names. He has evidently done his part. You should do yours. There are many interesting things to note all down the line in the rearing of different varieties of chicks. —F. J. Marshall in Atlanta Georgian.

Do give the later summer hatched chicks a chance to eat their meals without being run over by the other birds.

PURE FOOD EGGS

A bulletin was issued recently by the Kansas State College treating of this matter very fully. Here are the rules condensed into brief form. Cut them out and paste them up. They are not only worth remembering, but they are worth putting into practice:

Don't keep mongrel stock.

Don't hatch your next winter's layers after June 1.

Don't allow the male birds with the flock after you are through hatching. It does not increase egg production.

Don't compel the hens to make their nests in the weeds and under the buildings. Provide one nest for every four hens.

Don't allow the nests to become filthy.

Don't set hens where other hens can lay in the same nests.

Don't wait until ready to go to town before gathering the eggs.

Gather them at least twice a day during hot weather and on rainy days.

Don't keep eggs in a damp place, and don't keep eggs in the kitchen or near a fire of any kind.

Don't sell eggs that have been gathered from a stolen nest. Such eggs should be used at home.

Don't wash eggs.

Don't expose the eggs to the sun's rays when taking them to town.

Don't sell eggs case-count, but demand that your eggs be candled.

Don't hold eggs more than three days in warm weather.

Don't market eggs which have been in an incubator.

Don't keep eggs in a tight vessel of any kind.

Don't keep eggs near oil, onions, etc., as they readily absorb odors.

Don't market the small or dirty eggs. Use these at home.

EGG BOUND FOWLS

A hen so affected will be seen to visit the nest repeatedly without results. She will show general distress, with a depression of the wings and tail. The stoppage may be the result of the contraction of the egg passage, or of an abnormally large egg. In the latter case the remedy is easy.

For large eggs, which can be discovered by an examination of the bird, the vent should be softened by salad oil, followed by an injection of the same if this is not effective within an hour. Great care must be taken in handling or making an injection, for if the egg is broken the result will probably be fatal.

Benefit has been derived also from holding the bird above a jug of hot

water, allowing the steam to enter the vent. Contraction of the vent is generally accompanied by inflammation, either the cause or the result of the contraction. This can be discerned by the heat of the part and the feverishness of the bird. As an internal remedy, homeopathic tincture of aconite should be given. The vent and surroundings also should be fomented with a weak solution of aconite.—Ex.

CUBIST HEN LAYS SQUARE EGGS.

Port Northrup, who lives in Towanda township, and is one of the oldest farmers in Luzerne County, is the proud possessor of a hen that lays square eggs. The chicken has so far laid eight of them, and they are all built on the lines of a rectangle.

This fowl lays an egg three and one-fourth inches long, and almost square, the four sides running from one and one-fourth inches to one and one-eighth inches in width. The ends of the eggs, instead of bulging out, are depressed, and they will naturally not roll off the table.

Northrup is now figuring on the possibility of developing a strain of square egg layers. He says that the square egg is bigger and better than the round one, and that for shipping and storage purposes it has many advantages.

What caused the hen to change her method of constructing eggs is a problem that Northrup has been unable to solve.—New York Herald.

"WHEN IS A CHICKEN WILD?"

Somebody in White Salmon, Oreg., has a neighbor; the neighbor has chickens; the chickens stray into somebody's front yard; somebody is annoyed, and the chickens are in peril. Therefore, will the Supreme Court please rule on it.

"Please send me a copy of the decision which holds that a chicken is a wild bird while in a neighbor's yard and can be hunted as such," was the request that august tribunal received not long ago.

The Supreme Court has determined many perplexing questions, but never this.—The Feather.

The vices of feather pulling and egg eating are always more common in over-crowded flocks, than in quarters where there is plenty of space for the fowls to exercise.

It's all right for chickens to scratch, but they need a little extra encouragement to make five-pound pullets by Thanksgiving time.

RAISING A CHICKEN

Chasing and killing, and scalding, and picking. There's a great lot of work about raising a chicken.

All things considered, from beginning to ending,

Hatching and catching, and feeding and tending,

Watching the hen while she's doing the hatching,

Watching her, too, while she's eating and scratching,

Guarding 'gainst hawks and pole-cats and rats,

Driving off crows and strange dogs and cats,

Always ready to give something a licking,

There's a great deal of care about raising a chicken. —Ex.

HOW I BREED AND RAISE S. C. WHITE LEGHORNS

To raise chickens, one must, of course, first of all have a chicken house, for as the old saying goes, "get the cage before you get the bird." There are many different ways of constructing a house but the most essential features that should be remembered in building a chicken house are to have it strictly tight on the northern, eastern and western sides, with an open front on southern side. I prefer a tight board floor raised from the ground one foot to eighteen inches. I have the roosts on the north side and my drop board is raised two feet from the floor. On the southern side I have burlap curtains to let down only on extremely cold nights, while during the day I have them up so as to let lots of sunshine and fresh air into the house. The most important thing to be remembered is not to allow a draft of any kind to come into the house. I try to work by system and regularity. I use straw bedding 2½ to 3 inches. I find this plenty for fowls. I see some advocate 6 to 12 inches all over the scratching shed. No man ever saw fowls of any breed that could get all the grain out of bedding of straw 12 inches deep.

I use coops with false bottoms which I clean every day. I make my own from ¾-inch lumber. The bottom fits loose inside of coop. Hence, when there is a heavy rain, you will not have a lot of drowned chicks. I use a frame covered with inch mesh wire for front of coop. This I cover with burlap on account of rain. I keep them in this until the dew is off the grass. I keep the hen enclosed for three weeks.

Be on the lookout for lice fifty-two weeks in the year. I examine and take a squirt oil can and go over all the cracks in back sides of dropping board every two weeks. I alternate by using oil one week and carbolic acid the next. I use one pint of crude carbolic acid with a twelve quart can of hot (not warm) water. I sprinkle this in all the cracks on back and sides, drop board and roosts to keep the lice exterminated. By doing this, I manage to keep the lice down pretty well.

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I always try and keep something green growing in the breeding yards. I sow rye in September for fall and plow the rye under in April, work the ground thoroughly for about a week and then sow Dwarf Essex Rape the fore part of May. I do not let the birds in this for about two weeks. By thoroughly plowing the ground about twice a year keeps the yards more healthy. The rye keeps plenty of green feed on hand all winter. The rape furnishes plenty of green feed all summer and also furnishes shade. By leaving doors open at both sides of the house, four transit windows above drop boards and front, I have a very comfortable house for my birds in the summer. My birds seem perfectly satisfied at night. In the winter I have just the reverse, pure air, no dampness and warmth. I am very particular to give them a nice fresh nest, made of excelsior. I dust the hens thoroughly before placing them on the nest with insect powder.

When I get the incubator at an even temperature I take three ounces of Zenoleum with three pints of new milk and put it in an old basin and use an old dust brush to go over the entire inside and also over the chick trays and egg trays. I will say right here since I have been housing my birds in fresh air houses, using Zenoleum to disinfect the incubators for each hatch I have never had a case of white diarrhoea. I do not have any sick birds nor roup among my flock. Before I built the fresh air houses they were either damp, too cold or too warm.

I, naturally, would have some roup among my flock. Now my birds seem immune from disease. I brood with hens and fireless brooders. If I put them with hens. I am particular to feed the hens all the corn they want before placing in coops with chicks. They seem to keep quiet after a full feed as they will hardly eat anything while hatching. I do not feed chicks until twenty-four hours old.

Right here is where your success will be—I know by experience if you do not keep the brooder full of chicks your chicks will get chilled and die; however, in winter time more chicks can be accommodated than in summer. Always keep chicks hungry until last feed in evening then give them all they will clean up.

When chicks are four weeks old they should be looked after for head lice. Take a little coal oil, dip the tip of the finger in, rub thoroughly on back of head and under their throat. Be careful not to use it too lavishly; too much will kill the chicks. As a general thing, chicks brooded in a fireless brooder do not have lice.

I feed a commercial chick feed from the very first until they are three weeks old. I then add a little wheat of good grade and fine cracked corn. I now commence to feed in a hopper on the side a mixture of wheat, bran, ground oats and beef scraps. This I keep before them all the time. I use the very best meat scraps I can purchase. When six weeks old, I do away with chick feed; I then feed nothing but cracked corn and wheat, mixed equally. I keep this up until they are practically grown and thereafter feed wheat and corn separately, alternating

The . . . Orpingtons

Black, Buff and White



Specimen illustration (much reduced)

A COMPLETE AND AUTHORITY-ATIVE TEXT BOOK and Instructive Treatise devoted to the Orpington Fowl, the most popular breed in England and one of the leading favorites of Standard-bred Poultry in America. This book (80 large pages and cover) tells how to select breeders and how to mate for best results. Care, feeding and management fully discussed.

Edited by

J. H. DREVENSTEDT,

Breeder and Judge of twenty-five years' experience and member of Standard Revision Committee 1898, 1905 and 1910

Fully Illustrated by

F. L. Sewell, A. O. Schilling, I. W. Burgess and others.

CONTENTS

Chapter I—Orpington Origin
Chapter II—Orpington Type
Chapter III—Black Orpingtons
Chapter IV—Buff Orpingtons
Chapter V—White Orpingtons
Chapter VI—Non-Standard Varieties.
Chapter VII—Orpingtons as Exhibition Fowl
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Text and Illustrations are based on the changes in the 1910 American Standard of Perfection

Tells what changes were made, why they were made and how they will affect the mating and breeding problems that now confront the breeders of Orpingtons. Progressive breeders and exhibitors who wish to keep abreast of the times cannot afford to be without this book. Text supplemented by over sixty illustrations, by Sewell, Schilling and Burgess, a study in pictures that will prove valuable to breeders, bringing clearly before the eyes of all Orpington admirers, in the minutest detail, every point of value in the fowl. The text and illustrations not only bring the book down to date, but anticipate the advancement of the breed for years to come.

The book consists of 80 large pages, 8½x11½, is printed on first-class paper and bound in a handsome cover.

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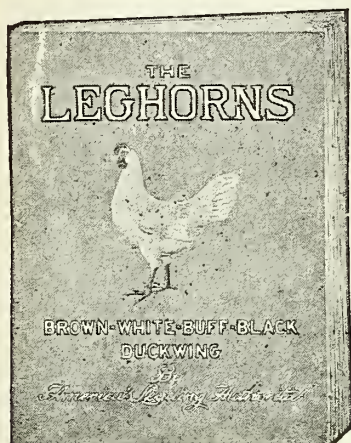
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morning and evening. Keep fresh water before them at all times, changing it two or three times a day when it is warm. I see articles in our best poultry journals advocating the feeding of milk to baby chicks. I have experimented with milk in almost every form. I have lost several hundred baby chicks from feeding it.

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Egg production in my opinion is a matter of strain, environment and feeding and not variety of breed. My birds are proving to be satisfactory and my record for inquiries and sales thus far for both stock and eggs surely show me that the demand for these birds is far beyond the supply.—S. F. Shallcross, Odessa, Del., in Poultry Item.

INFLAMMATION OF THE EGG PASSAGE

This is a very serious disease, and it may appear in connection with an egg-bound condition or might be due to the use of stimulating poultry foods which we often see advertised to increase the egg production. These foods are too irritating and one should not use such foods too much; it has been my experience that a hen lays better if you do not use these so-called "egg foods;" any hen that has to be compelled to lay by these foods will be of little value as a layer or breeder.

With this trouble the hen is almost constantly trying to expel an egg by straining; it seems as though the egg is in the end of the duct. This straining is sometimes so violent that a blood vessel is broken, then the bird will die immediately. The bird's wings will be drooped, the feathers will be all ruffled up, and the bird will lose all energy. The vent will also be very red, with high fever and in constant motion. In a few days the bird will begin to get weaker, the comb will drop very low and at last the bird will breathe its last.

This disease is incurable unless the cause can be removed. If you will trace back a little you will find out it is brought about by an over-fat condition of the bird. Egg passages are fat, the egg large, this retains the egg in the passage causing inflammation to begin. Do not feed the pullets and hens together, but separate them, the hens will fatten quicker than the pullets.

If this trouble is caused by an egg being broken in the passage or by an unexpelled one the first thing to do

is to remove the egg as quickly as possible. Oil the finger with a little vaseline and inject into the vent and remove the broken egg is possible, and if too far away inject a small quantity of olive oil into the vent, this will most always help the bird expel the eggs. After you have removed the egg wash out the passage with a weak solution of carbolic acid by means of a small syringe. Now give the bird a tablet of nux vomica and sulphur comp. (1-100 of a grain strength each) and keep the bird quiet and do not feed stimulating foods.—J. Gaylor Blair, Carlisle, Kentucky.

If you are through hatching, thoroughly clean your incubators so they will be in shape for next season.

SOON WE CAN PICK EGGS FROM THE AIR

Artificial eggs, made from the air, will be the next great feat of chemistry.

Dr. Paul Walden, of Riga, Russia, president-elect of the Ninth International Congress of Applied Chemistry, to be held in St. Petersburg, in 1915, makes this prediction.

No longer will the price of eggs be dependent on the vagaries of the hen, if Dr. Walden's prophecy is realized.

"Not only eggs, but a variety of nitrogenous foods will be made from the air some day," declared Dr. Walden.

"Notwithstanding the remarkable advance made in synthetic chemistry in the last few years, the science has many surprises still in store. I consider it practically certain that some day, and not a very distant one, either, we shall be drawing food supplies from the air. Why not? Professor Bernthsen, of Germany, has already succeeded in making the simple compound of nitrogen and hydrogen.

"Since we can make simple compounds in imitation of nature, we shall soon learn how to make more complex compounds."

The Russian chemist admitted that his prediction, if realized, will revolutionize the world's ideas of food supply, solve the problem of the high cost of living and provide an ever-ready source of competition for the "beef trust."

"Modern chemistry is simply teaching us to do for ourselves what nature has always done for us," continued Dr. Walden. "Nitrogen is one of the great nourishing elements of such foods as meats and eggs. It occurs in limitless quantities in the air. Seventy-nine per cent of the volume of the atmosphere is nitrogen, the rest being oxygen and other gases.

"An egg is a complex compound of nitrogen, oxygen, sulphur and hydrogen. The chemical process of the hen will be imitated in the laboratory.

"Two great fields for the future development of science are the chemistry of the air and the chemistry of electricity. Undreamed-of benefits to mankind will come with the discoveries to be made in these fields. Electricity is coming more and more as an aid to synthetic chemistry.

"I speak of Professor Bernthsen's success in making synthetic ammonia in a practical way, for it was only a

short time ago that we depended for our supply of ammonia on various ammonium compounds existing in nature. Formerly we were able to do very little with the uncombined nitrogen in the atmosphere. Now that we have learned to harness it and put it to use, the possibilities are wonderful.

"There is a lot of carbon dioxide in the air, which I believe we shall some day be able to use in making synthetic foods, just as the plants now use it by absorption."

WHITEWASH NOW

Whitewashing is one thing that can be done in warm weather that will have a tendency to make the poultry house have a cleanly and fresh appearance. It will not only help it so far as sanitary conditions are concerned, but it will make it look a great deal better. There are more ways than one in which whitewashing may be done. The old way is to apply it with a brush and this is perhaps a good way where there is no better. Sprayers will do the work just as well. Nearly every poultry yard has a sprayer of some kind, and it is a splendid thing with which to whitewash the building. By spraying the whitewash often over the walls, roosts, nests and all the surface, it will help largely in keeping down the vermin. If it can be done with a machine of this kind will not be so much of a chore, and it can be done often, and more often than it would be done if it had to be done with brushes.

Coal oil emulsion will also be a great aid in keeping down the lice and mite trouble, which is almost sure to come with hot weather if the house is neglected. Use whitewash plentifully and without stint and it will well repay the labor performed.—Useful Poultry Journal.

TO PREVENT EXCHANGE OF BIRDS IN THE SHOW ROOM

The following article is from the pen of Mr. J. L. Purple, associate editor of Poultry Item, which appears in the July issue of that journal:

For years managers of Poultry shows have been bothered because of entries getting mixed up, and wrong birds going back to breeders. This occasionally occurred through errors; but frequently unscrupulous breeders exchange the birds before they are boxed for returning, thus securing a winning bird for themselves, and a cull usually goes to the winning breeder. This year the managers of the Grand Central Palace show are putting in force a splendid system, whereby much of this trouble will be eliminated. They will band each entry as they are cooped with a leg band bearing the coop number and when entries are returned the numbers can be compared. Several other Associations will also adopt this system, but still it is not perfect and as long as exhibitors are allowed to handle their own exhibits and coop their birds to be returned this same trouble is liable to occur, and the dishonest ones will find a way to beat the system.

Why not go a step further and make a rule that when exhibitors enter their birds they are placed under the supreme care of the show managers and the owner will have no authority to coop or repack the entries, this work to be done by officers of the show who are experienced poultrymen and who will handle the entries carefully and place them in the exhibition and return coops as safely and carefully as if the breeder did it himself. This would prevent any man from taking another's birds and sending to his own yards, and correct a great evil that has bothered the assistants in the show room for years.

Some breeders may object to this system simply because they have been accustomed to caring for their own entries for years, and they imagine that the assistants in the show room cannot do it as well. This is a fallacy pure and simple. Nothing will prevent the breeder being present and seeing that the work is done properly; but the custom of each handling his own exhibit is antiquated and should be abolished.

VALUABLE POINTERS

The successful poultry raiser loves his fowls and his work.

Duck raisers claim that a hawk will never attempt to steal a duckling.

Chopped-up onion tops make good chick medicine at this time of year.

Before packing and shipping, poultry should be thoroughly dry and cold, but not frozen.

Don't keep 50 hens in a place built for 25; if you do, your egg yield will fall off 50 per cent.

Limberneck is generally caused by the fowls eating dead animal matter that has bred maggots.

Better keep the hens in the house on cold, rainy days, or they will get soaked and take rheumatism.

Careful breeding, proper feeding and the right kind of care will produce heavy laying in any breed.

When a person begins by saying, "Of course it's none of my business but—" he's getting ready to butt in.

Trap nests and numbered leg bands constitute the only sure means of finding out which hens are doing the work.

Sudden fright and excitement at once tell on the egg crop. Never allow strange dogs about where the hens are.

More mothers would want their sons to be ministers if they were not afraid it might prevent them from becoming President.

Fresh air, sunshine and exercise are the best poultry tonics. But fresh air does not mean drafts in the houses, nor does sunshine call for exposure to hot suns during the summer.—Ex.

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